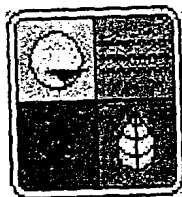


**2002 Kansas City Maintenance Plan for Control of Ozone**

**Missouri Air Conservation Commission  
Adopted July 25, 2002**

**Revised December 5, 2002**



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2002 Kansas City Ozone Maintenance Plan

**Missouri's Kansas City Ozone Maintenance Plan  
Submitted to the U.S. Environmental Protection Agency  
By the Missouri Department of Natural Resources'  
Air Pollution Control Program**

**Missouri Air Conservation Commission  
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## **ACKNOWLEDGMENTS**

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**Kansas Department of Health and Environment  
The United States Environmental Protection Agency (Region VII)  
Mid-America Regional Council**

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## **1.0 EXECUTIVE SUMMARY**

### **1.1 TIME LINE HISTORY OF MAINTENANCE PLAN**

#### **1.1.1 MAINTENANCE PLAN ISSUES AND ACTIONS FROM 1970 THROUGH 1994**

The Clean Air Act (CAA) established National Ambient Air Quality Standards (NAAQS) for the six criteria pollutants. The CAA requires any area that fails to attain the standard for any criteria pollutant to develop and implement a plan. In the 1970s, the Kansas City Metropolitan Area (KCMA) was determined to be in violation of the ozone NAAQS. The state of Missouri developed and implemented the first Kansas City Ozone Implementation Plan in 1979.

The U.S. Environmental Protection Agency (EPA) fully approved the 1979 Kansas City Ozone Implementation Plan and the KCMA was projected to meet the ozone NAAQS by December 31, 1982. The area appeared to meet the standard at that time. However, violations in 1983 and 1984 required the state to revise the 1979 ozone implementation plan.

These required revisions to the 1979 Plan were included in the 1987 ozone implementation plan. The 1987 ozone implementation plan projected attainment of the ozone NAAQS by December 31, 1987. The EPA fully approved the 1987 ozone implementation plan on November 2, 1989. However, three violations in the monitoring period from 1986 through 1988 halted the re-designation effort.

Ozone monitoring data from 1987 through 1991 demonstrated that the area had attained the standard. In accordance with the Clean Air Act Amendments of 1990 (CAAA), the Missouri Department of Natural Resources' Air Pollution Control Program revised the Missouri Ozone Plan for the KCMA to recognize that the area had achieved the ozone NAAQS. The EPA published final approval of the maintenance plan on June 23, 1992. The maintenance plan became effective on July 23, 1992. This action officially re-designated the KCMA to attainment.

#### **1.1.2 MAINTENANCE PLAN ISSUES AND ACTIONS FROM 1995 THROUGH 1997**

The KCMA experienced a violation of the ozone standard in the summer of 1995. This violation mandated the implementation of the contingency control measures listed in the maintenance plan adopted in 1992. These control measures included:

- 1) Emissions offsets of 1:1 for all major sources;
- 2) Stage II Vapor Recovery or Enhanced Inspection and Maintenance (I/M);
- 3) Transportation Control Measures (TCM) achieving a 0.5% reduction in area Volatile Organic Compounds (VOC) emissions; and
- 4) A comprehensive emission inventory.

The states of Missouri and Kansas, along with the Mid-America Regional Council (MARC), expressed to the EPA that they wished to amend the control measures listed in the



contingency section of the 1992 implementation plan. The EPA agreed that the measures could be changed as long as the revised plan achieved the same level of control.

The states asked the MARC Air Quality Forum to aid in the review of the control measures available to the KCMA. The Air Quality Forum convened the Ozone Subcommittee to conduct a technical analysis of the control measures. The Ozone Subcommittee evaluated the following major control measures: federal reformulated gasoline (RFG), low Reid Vapor Pressure (RVP) gasoline, Stage II Vapor Recovery, and I/M (14 different programs). The Ozone Subcommittee also evaluated transportation control measures including:

- 1) Free transit for high ozone season;
- 2) Free transit on red skycast days;
- 3) Commuter rail in Interstate 35 corridor;
- 4) Increased bus service for high ozone season;
- 5) Light rail transit, clean fuel fleets;
- 6) Lanes for high occupancy vehicles;
- 7) Enhanced traffic signalization on arterial routes;
- 8) Nontraditional work scheduling and commuting;
- 9) Telecommuting;
- 10) Parking surcharges; and
- 11) Taxes on vehicles miles traveled and gasoline.

The Air Quality Forum reviewed the Ozone Subcommittee report and recommended the following control measures:

- 1) Expanded public education;
- 2) Low RVP gasoline;
- 3) Motor vehicle I/M;
- 4) Seasonal no-fare transit; and
- 5) Clean fuel fleets.

The Air Quality Forum also recommended enhanced traffic signalization, expanded transit, expanded Heartland Sky program, land use planning, air quality data collection, expanded public education, and a stationary source study as supplementary measures.

The department's Air Pollution Control Program prepared a revised maintenance plan, which was presented at public hearing on April 24, 1997. The plan was then presented to the Missouri Air Conservation Commission (MACC) for adoption at the June 28, 1997, meeting. The commission recommended that the department's Air Pollution Control Program revise the plan to include Stage II Vapor Recovery in the place of an I/M Program. The decision to relinquish the I/M Program was made partially due to the difficulty in implementing such a program considering the extended length of time necessary to develop it and put it into action. At the July 24, 1997, MACC meeting, the commission members agreed to allow the department's Air Pollution Control Program some time to reconsider the control strategies for the Kansas City area with the MARC Air Quality Forum and the local agencies. The commission directed the department's Air Pollution Control Program to bring the plan back for public hearing no later than December of 1997.

The Air Quality Forum held a meeting on September 3, 1997, to discuss the control options. The discussions at this meeting also addressed a second violation of the ozone standard, which occurred on August 28, 1997. The Air Quality Forum convened again on

October 7, 1997, to recommend the control strategies for the KCMA. The forum recommended the implementation of expanded public education and Heartland Sky programs, RFG, stationary source reductions, air quality data collection, and supplementary control measures including:

- 1) Seasonal reduced-fare and transit;
- 2) Clean cities programs;
- 3) Enhanced traffic signalization;
- 4) Expanded transit program; and
- 5) Land use planning.

The Air Quality Forum recommended the inclusion of Stage II Vapor Recovery as a contingency in the event the implementation of the RFG program was unsuccessful.

The department's Air Pollution Control Program amended the revised maintenance plan to reflect the latest MARC recommendations. One important element of the maintenance plan was left to the MACC to determine. This element was the implementation year for RFG. The department's Air Pollution Control Program drafted the plan with language requesting comments on an implementation date. As recommended, the department's Air Pollution Control Program also included a Stage II Vapor Recovery regulation to be promulgated if the RFG program could not be implemented.

### **1.1.3 MAINTENANCE PLAN ISSUES AND ACTIONS IN 1998**

On February 3, 1998, the MACC adopted the revised Kansas City Ozone Maintenance Plan. The commission also set the recommended implementation date for the RFG program as April 15, 2000. The department's Air Pollution Control Program committed to request the Governor of Missouri to opt the Missouri counties of the KCMA into the federal RFG program.

The department's Air Pollution Control Program sent the revised maintenance plan to the EPA, Region VII on March 25, 1998. The EPA found the revised maintenance plan complete on May 26, 1998.

As was required in the maintenance plan, the department's Air Pollution Control Program updated the MACC on the status of the Federal RFG amendment at the August 1998 meeting. The department's Air Pollution Control Program recommended that the commission delay any action until the September 24, 1998, MACC meeting. The EPA finalized the Federal opt-in rule amendment to allow Kansas City as a former non-attainment area to opt-in the Federal RFG program on September 29, 1998.

At the September 24, 1998, MACC meeting, the Department's Air pollution Control Program requested direction from the commission on moving forward with the maintenance plan as adopted. The department's Air Pollution Control Program informed the commission that the EPA had passed the needed regulation allowing Missouri and Kansas to request RFG for Kansas City. The commission agreed that the department's Air Pollution Control Program should move forward with the maintenance plan as adopted.

### **1.1.4 MAINTENANCE PLAN ISSUES AND ACTIONS IN 1999**

On May 27, 1999, the EPA published a conditional approval of the maintenance plan. The conditions of this approval were that the governor of Missouri opt-in to the federal RFG program and the state implement a regulation for a state fuel, or implement Stage II Vapor Recovery by April 15, 2000.

On April 6, 1999, the EPA disapproved the Long Range Transportation Plan (LRTP) for the KCMA. The Federal Highway Administration stopped approving new roadway projects on May 7, 1999. July 28, 1999 was set as the date that highway funding would begin to be withheld.

On June 2 and 3, 1999, the Kansas Department of Health and Environment (KDHE), in conjunction with the department's Air Pollution Control Program, held a Kansas City Fuels Summit to discuss the implementation of the ozone maintenance plan options. While the fuels summit did not clearly result in the recommendation of the federal RFG program, the summit did illustrate the difficulties of not pursuing federal RFG.

On July 27 and 28, 1999, Governor Graves of Kansas and Missouri Governor Carnahan respectively, signed letters (See Appendix E) requesting that the KCMA be included in the federal RFG program. Submitting the opt-in letters to the EPA brought the LRTP into conformity, thereby making the plan approvable and allowing federal highway funding distribution again.

However, on November 9, 1999, the United States Court of Appeals for the District of Columbia Circuit issued an order to stay the effectiveness of the EPA amendments to 40 CFR part 80 Subpart 70(k). This stay prevented former nonattainment areas to opt-in to the federal RFG program.

### **1.1.5 MAINTENANCE PLAN ISSUES AND ACTIONS IN 2000**

On January 4, 2000, the same court revoked the EPA's rulemaking. The action of the court eliminated the availability of RFG for the KCMA at this time. The department's Air Pollution Control Program met with petroleum interests serving KCMA on March 3, March 20, and April 11 to discuss the availability of an RFG-like fuel for KCMA. The petroleum industry committed to providing a 7.0 RVP gasoline in the KCMA. This gasoline alone would not meet the emission reduction needed for the maintenance plan. The states would have to make up the difference in emission reductions through stationary source controls.

The EPA sent Governor Carnahan a letter dated April 11, 2000, which started a 90-day clock. Within this 90 days, the state was required to develop and submit a revised control strategy for the KCMA to replace the RFG strategy that was no longer a viable option.

On June 13, 2000, the Air Quality Forum voted to reaffirm their recommendation that Stage II Vapor Recovery be implemented if a state RFG-like fuel was not available to the KCMA. On June 29, 2000, the MARC Board of Directors also voted to reaffirm their commitment to implement Stage II Vapor Recovery if a state RFG-like fuel is not available for the KCMA.

The state of Kansas sent a letter (see Appendix E) to the EPA committing to a 7.0 RVP gasoline and a cold solvent cleaning rule on July 7, 2000.

In addition, the state of Missouri sent a letter (see Appendix E), on August 22, 2000, committing to implement a 7.0 RVP regulation and a cold solvent cleaning regulation. In addition, department's Air Pollution Control Program committed to amend the Stage I Vapor Recovery Program in KCMA to include enhanced reporting and record keeping, increased inspection frequency, and installation of pressure vacuum relief valves. In addition, the department's Air Pollution Control Program proposed rule 10 CSR 10-2.205 Control of Emissions from Aerospace Manufacturing and Rework Facilities. This rule was identified in the Kansas City Ozone Maintenance Plan adopted in 1992 as a possible stationary source control, which the department's Air Pollution Control Program committed to pursue. This rule was presented at a public hearing on October 26, 2000. The rule was adopted by the MACC on December 7, 2000, and became effective on March 30, 2001.

The department's Air Pollution Control Program filed a new rule 10 CSR 10-2.215 Control of Emissions from Solvent Cleanup Operations on August 30, 2000. This rulemaking was identified in the Kansas City Ozone Maintenance Plan adopted in 1992 as a possible stationary source control, which the department's Air Pollution Control Program committed to pursue.

The department's Air Pollution Control Program filed an amendment to rule 10 CSR 10-2.330 Control of Gasoline Reid Vapor Pressure on September 26, 2000. This rule was part of the Governor's commitment letter that replaced the RFG commitment in the Kansas City Ozone Maintenance Plan.

The department's Air Pollution Control Program filed an amendment to rule 10 CSR 10-2.260 Control of Petroleum Liquid Storage, Loading, and Transfer on December 1, 2000. This rule was part of the Governor's commitment letter that replaced the RFG commitment in the Kansas City Ozone Maintenance Plan.

### **1.1.6 MAINTENANCE PLAN ISSUES AND ACTIONS IN 2001**

Rule 10 CSR 10-2.215 was adopted by the MACC on February 6, 2001, and became effective on May 30, 2001. The 10 CSR 10-2.330 rule amendment was adopted by the MACC on February 6, 2001, and became effective on May 30, 2001. The 10 CSR 10-2.260 rule amendment was adopted by the MACC on March 29, 2001, and became effective on July 30, 2001.

The department's Air Pollution Control Program filed an amendment to rule 10 CSR 10-2.210 Control of Emissions from Solvent Metal Cleaning on January 29, 2001. This rule was part of the Governor's commitment letter that replaced the RFG commitment in the Kansas City Ozone Maintenance Plan. The amendment requires low vapor solvents to be used for cold cleaning. This rule amendment was adopted by the MACC on May 24, 2001, and became effective on October 30, 2001.

The department's Air Pollution Control Program worked with the State of Kansas and MARC to develop the 1999 emission inventory for Kansas City Maintenance Area. The inventory has been completed.

### **1.1.7 MAINTENANCE PLAN ISSUES AND ACTIONS IN 2002**

In late January 2002, MOBILE 6 was issued by the EPA for use in calculating on-road mobile emissions. The department's Air Pollution Control Program through the interagency consultation group process and with the assistance of MARC elected to use MOBILE6 in calculating on-road mobile emissions and to develop area, point and off-road emissions inventory numbers for 1999.

On June 11, 2002, MARC Board approved the Mobile Budgets. On June 28<sup>th</sup> the 2002 Maintenance Plan for Control of Ozone with the Mobile Budgets included was submitted to Public Hearing. On July 25, 2002 the 2002 Maintenance Plan for Control of Ozone plan was adopted by the MACC. The department's Air Pollution Control Program notified the MACC that a set of new population and employment forecasts was being received by MARC when available. Upon receipt of the forecast data necessary to calculate the impact of the employment and forecast changes, new mobile budgets may have to be developed. On September 24, 2002 MARC approved new employment and population forecasts. The forecasts impact to the projected area sources and projected mobile budgets was closely examined by interagency consultation group process and with the assistance of MARC. A new area inventory was developed for Kansas and Missouri and a new mobile emission budget was developed. MARC approved the New Mobile Emission Budget on October 29, 2002. The new Mobile Budget was submitted for Public Hearing at the MACC meeting on October 24, 2002. The Mobile Budgets was approved by MACC on December 05, 2002

## **1.2 KANSAS CITY OZONE MAINTENANCE PLAN COMPONENTS**

### **1.2.1 ADMINISTRATIVE REQUIREMENTS**

This section provides the legal authority statement, the public hearing notice along with the certification of public notice, the comments with the responses from Public Notice, and provides for the MACC Adoption Certification.

### **1.2.2 DEMONSTRATION OF CONTINUED ATTAINMENT**

This section of the Kansas City Maintenance Plan for Control of Ozone reveals by comparing updated emission inventory data, the Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) emissions from 1999, and projections of the VOC and NOx emissions for the year 2012, that it is reasonable to conclude that the emission levels experienced in 1999 will not be exceeded in 2012. The analysis shows no increase in VOC and NOx emissions through the life of the maintenance plan. In 1991, the EPA approved the Kansas City Maintenance Plan by demonstrating the Ozone action levels in 1989 that attained the NAAQS will remain below the action level through 2002. In a similar manner, the 2002 plan demonstrates the VOC and NOx levels in 1999 when projected to 2012 reveals no increase in VOC and NOx emissions. The 2002 Kansas City Maintenance Plan for Control of Ozone will allow the area to remain in compliance with NAAQS for the next ten years or the life of this plan.

The Plan shows that, without adding any new control measures to the KCMA, ozone precursor emissions will be reduced between 2000 and 2012. These reductions will be realized through a combination of already adopted State and Federal control measures and future federal programs affecting mobile sources, stationary sources, and transportation systems. The KCMA will meet the one-hour ozone standard through 2012 with the control measures listed in the Demonstration of Continued Attainment section.

### **1.2.3 TRACKING PLAN'S PROGRESS & INVENTORY PROVISION**

This section of the Kansas City Maintenance Plan for Control of Ozone is divided into sections that describe the ozone-monitoring network and provides for the required emission inventory update provisions.

The primary tracking plan for the KCMA consists of continuous ozone monitoring. The ongoing regional transportation planning process carried out by the MARC, in coordination with the KDHE, the department's Air Pollution Control Program, and the EPA, will serve as a secondary means of tracking mobile source VOC and NOx precursor ozone emissions into the future. The region's transportation improvement programs are prepared every two years, and must go through a transportation conformity finding. This process will be used to periodically review progress toward meeting the vehicle miles traveled (VMT) and mobile source emissions projections in this maintenance plan.

The locations of the six KCMA monitors are provided and the agency responsible for the individual monitors is disclosed. Table 1 is provided which reveals the number of exceedances during the ozone seasons from 1991 through 2001. Table 2 presents the ozone exceedances by monitor in the KCMA for the years 1982 through 2001. Table 3 is a list of design values for the maintenance area. Design values are used as indicators of air quality. This section discusses the exact ozone monitor value that would be interpreted as an exceedance. In addition, this section discusses the history of missing monitor data, how missing monitor data is handled, and reveals sources of monitor down time. All recent missing monitor data occurrences qualified to be treated as discounted data or not counted as exceedances.

An emission inventory is an itemized list of emission estimates for sources of air pollution in a given area, for a specified time period. The inventory is divided into stationary sources (point, area and biogenic) and mobile sources. The department's Air Pollution Control Program realizes the importance of a quality up-to-date emissions inventory in planning for air quality. Therefore, the department's Air Pollution Control Program commits to updating the emissions inventory to enable tracking of emission levels for the KCMA every three years for the next ten years or the life of this plan. This emissions inventory update will include point, area, mobile and biogenic emission revisions.

### **1.2.4 EMISSION INVENTORY AND MOBILE VEHICLE BUDGETS**

The base year for the new inventory is 1999. No violations of the one-hour ozone standard occurred during the 1998-1999 period. The region was in compliance with the one-hour ozone standard.

The emission inventory update information is broken out into mobile on-road and off-road, area, point, and biogenic sources in Tables 4, 5, and 6. Table 4 is the total for the actual 1999

and projected 2012 emissions for the Missouri counties of the KCMA while Table 5 is the Total of the Kansas Counties of the KCMA. Table 6 is the combined Missouri and Kansas counties. A discussion of the mobile on-road and off-road emission data and the program used to estimate the emission data is provided. MARC, using the EPA MOBILE6 model for on-road modeling and Draft NONROAD model for off-road, developed the data for the on-road and off-road mobile emissions. The draft NONROAD model that was released in June 2001 in support of the 2007 heavy-duty vehicle rule was used to generate 1999 and 2012 emissions estimates for all off-road mobile source categories covered in the non-road model. A discussion of the biogenic data is provided which includes revealing the model used in the data development. This section contains general information about the emission data. The point and area sources calculation and source information is found in this section.

The existing budgets for 2000 and 2010 were calculated in 1995. In that exercise, the 1990 level of emissions was assumed to keep the region in compliance with the one-hour ozone standard and was used as a cap on overall emissions through 2010. The 2010 level of emissions was less than the emissions in 1990, and the difference was quantified as a margin, which allowed for some growth in emissions from all sectors in 2010. Approximately one-third of the margin, which was the percent of overall emissions contributed by vehicles, was specifically allocated to motor vehicles. The motor vehicle emissions budget was the projected on-road mobile emissions in 2010 (assuming transportation investments through 2010) plus the motor vehicle proportion of the margin (allowing for growth in mobile emissions).

A plan revision submitted by the state in 1995 and approved by EPA (61 FR18251 on April 25, 1996) establishes the current motor vehicle emissions budgets used to ensure that transportation plans conform to the ozone maintenance plan, see 40 CFR 52.1321(e). The budgets are shown in the following table:

Motor Vehicle Emissions Budget (MVEB) for Conformity Purposes	
Compounds	2000 Attainment MVEB for the KCMA
Non-methane hydrocarbons	87,548 kg/summer day (96.3 tpd)
NOx	119,889 kg/summer day (131.9 tpd)

The mobile source budgets for 2012 are:

VOC: 54.7 tons /ozone season day

NOx: 97.8 tons /ozone season day

This budget is expected to allow the area to maintain the one-hour ozone standard.

### 1.2.5 CONTINGENCY MEASURES

Section 175A of the CAAA requires all maintenance plans to include such contingency commitments as needed to keep an area from exceeding the standard once attainment has been reached. The department's Air Pollution Control Program is obligated under the CAAA to set forth a plan to be implemented upon a violation of the ozone standard in the KCMA. The CAAA requires a group of specific control measures to be implemented in case of an ozone violation.

### **Contingency Measure Trigger for 2003 to 2004**

Violation occurs anywhere within the maintenance area.

Statewide NOx rule (MO)

Federal Non-road Engine Standards

One or more of the following will be considered for implementation:

- Industrial emission offsets of 1.15 to 1;
- Stationary source controls for NOx and VOC;
- Stage II Vapor Recovery program at gasoline refueling stations;
- Enhanced vehicle emission reduction programs;
- Alternate fuel programs for fleet vehicle operations;
- Vehicle anti-tampering programs;
- Other transportation control measures;
- Vehicle inspection and maintenance program;
- VOC controls on minor sources; and

The department's Air Pollution Control Program will further review and evaluate the current VOC rules to see if they need to be tightened, changed or modified.

### **Contingency Measure Trigger for 2005-2012**

#### **Level I Trigger**

The KCMA NOx or VOC emissions inventories for 1999 increase more than 5% above the levels included in the 3-year emissions inventories updates.

The department's Air Pollution Control Program will work cooperatively with KS to evaluate the exceedances, or determine if adverse emissions trends are likely to continue. If so, the states will determine what and where controls may be required, as well as level of emissions reductions needed, to avoid a violation of the NAAQS. The study shall be completed within 9 months. If necessary, control measures shall be adopted within 18 months of determination.

#### **Level II Trigger**

A violation of the Ozone NAAQS at any monitoring station in the KCMA.

The department's Air Pollution Control Program will work cooperatively with KS to conduct a thorough analysis to determine appropriate measures to address the cause of the violation. Analysis shall be completed within 6 months. Selected measures shall be adopted within 18 months and implemented as expeditiously as practicable, taking into consideration the ease of implementation and the technical and economic feasibility of selected measures.

### **Point, Mobile and Area Control Measures**

#### **Point Source Measures**

NOx SIP Call Phase II (non-utility).

Reinstate requirements for Offsets and/or Lowest Achievable Emission Rate (LAER).

Apply Reasonably Available Control Technology (RACT) measures to smaller existing sources.



Other control measures to be identified.

### **Mobile Source Measures**

Tier 2 Vehicle Standards and Low Sulfur Fuel

Heavy Duty Diesel Standards and Low Sulfur Diesel Fuel

TCM's, including, but not limited to, area-wide rideshare programs, telecommuting, transit improvements, and traffic flow improvements.

Vehicle testing I/M (OBDII)

California Engine Standards

Other measures to be identified

### **Area Source Measures**

California Architectural/Industrial Maintenance (AIM)

California Commercial and Consumer Products

Broader geographic applicability of existing measures

California Off-road Engine Standards

Other measures to be identified

## **1.2.6 PROVISION FOR OPERATION OF MONITORING NETWORK**

This section outlines actions to upgrade the monitoring network. Moving of the Worlds of Fun monitor to Rocky Creek, the new Leavenworth County monitor and the pending construction of Johnson County monitor is mentioned. Reference is made to commitment letters from the department's Air Pollution Control Program to the EPA and acceptances by the EPA of the commitment letter. A commitment to operate the monitoring network for ten years or the life of the plan is found in this section.

## **1.2.7 CONFORMITY**

A general conformity regulation (10 CSR 10-6.300 Conformity of General Federal Actions to State Implementation Plans) became effective on September 30, 1996. This rule implements section 176(c) of the CAA, as amended (42U.S.C. 7401 et seq.) and regulations under 40 CFR part 51 Subpart W. Under those authorities, no department, agency, or instrumentality of the Federal Government shall engage in or approve any activity that does not conform to an applicable implementation plan. This applies to areas in Missouri that are designated as a nonattainment or maintenance area for any criteria pollutant of NAAQS.

A conformity analysis (see List of References # 7) is a demonstration that the regional emissions from proposed transportation projects would not exceed the motor vehicle emissions budgets. If the conformity requirements cannot be met, then only certain types of projects may proceed until the requirements can be met. The conformity analysis clearly indicates that regional motor vehicle emissions of VOC and NOx remain below the budgeted level in the proposed regional plan while accounting for the network anticipated to be operational as a result of roadway capacity projects listed in the 2002 Transportation

Improvement Plan (TIP). As such, the analysis indicates that the 2002 TIP and the 2020 LRTP are in conformity with the plan.

## **2.0 THE 2002 KANSAS CITY OZONE MAINTENANCE PLAN**

### **2.1 ADMINISTRATIVE REQUIREMENTS**

#### **2.1.1 LEGAL AUTHORITY**

The Missouri Air Conservation Commission is granted legal authority to develop and implement regulations regarding air pollution under section 643.050 of the Revised Statutes of Missouri.

#### **2.1.2 PUBLIC HEARING NOTICE AND CERTIFICATION**

The department's Air Pollution Control Program is required to announce a public hearing, at least 30 days prior to holding such hearing. This was accomplished by announcements submitted to newspapers at least 30 days prior to the public hearing which occurred on June 28, 2002. Attached in Appendix F is the public hearing notice along with certification of publication of the public notice for the entire Maintenance Plan. Attached in Appendix J is the public hearing notice along with certification of publication of the public notice for the revision of the Mobile Budgets from the new forecasts .

#### **2.1.3 COMMENTS, RESPONSES, AND EXPLANATIONS OF CHANGE**

Attached in Appendix G are the department's Air Pollution Control Program's responses to comments received during the open public comment period on this plan. The comment period was open until seven days after the Public Hearing that occurred on June 28, 2002. The department's Air Pollution Control Program is required to respond to all comments received. Attached in Appendix K is the comments and responses on the revised budget.

#### **2.1.4 MACC ADOPTION CERTIFICATION**

Attached in Appendix H is the MACC adoption certification to demonstrate approval by the commission of the entire Maintenance plan. Attached in Appendix L is the MACC adoption certificate for the revised Budgets and inventory. Attached in Appendix M is the final EPA approval of 2002 Kansas City Maintenance Plan.

## 2.2 DEMONSTRATION OF CONTINUED ATTAINMENT

### 2.2.1 DEMONSTRATION OF DECREASING INVENTORY VALUES

The area wide VOC emissions inventory for 1989 that attained the NAAQS standard for ozone, less a margin for safety, is 236,872 kg/day (260.6 tons per day). In 2000, the area wide VOC emissions were projected to be 186,557 kg/day (205.2 tons per day), a decrease of 50,315 kg/day (55.4 tons per day). Given the margin, the EPA concluded that VOC emissions will remain below the action level through the year 2002.

In 1999, the area wide VOC emissions were 253.6 tons per ozone season day (osd). In 2012, emissions are projected to be 221.7 tons per osd (biogenic emissions not counted). The projection of the 2012 maintenance plan emissions demonstrates the area will maintain the ozone standard for the next ten years, i.e. through 2012. However, some parts of the country show increases in ozone levels over the last ten years, due largely to increased NO<sub>x</sub> emissions and weather conditions favorable to ozone formation according to the National Air Quality and Emissions Trends Report in 1999. These increases appear to be explained by weather conditions more conducive to ozone formation (i.e., higher summer temperatures and drier conditions) in 1999 relative to 1990 paired with increased NO<sub>x</sub> emissions in many of the affected states. NO<sub>x</sub> are emitted from motor vehicles, power plants, and other sources of combustion and natural sources including lightning and biological process in soil.

VOC emissions will remain below the action level for the next ten years. NO<sub>x</sub> emissions levels are reviewed to provide more assurance for remaining in compliance. Since increases in NO<sub>x</sub> emissions and the associated changes in atmospheric chemistry could result in violations of the ozone standard. The 1999 NO<sub>x</sub> emissions are 424.2 tons per ozone day and the projected 2012 NO<sub>x</sub> emissions are 373.5 tons per ozone day. The analysis shows no increase in NO<sub>x</sub> emissions through the life of the maintenance plan. Therefore, with VOC emissions below the action level and with NO<sub>x</sub> emissions not increasing, the area will be in attainment for the next ten years.

### 2.2.2 CONTROL MEASURES

The Plan shows, without adding any new control measures to the KCMA, ozone precursor emissions will be reduced between 2000 and 2012. These reductions will be realized through a combination of already adopted control measures and programs affecting mobile sources, stationary sources, and transportation systems. The KCMA will rely on the State and Federal control measures and programs contained in the plan to demonstrate maintenance of the one-hour ozone standard through 2012. These control measures and programs are listed below:

#### 2.2.2.1 DEPARTMENT'S AIR POLLUTION CONTROL PROGRAM CONTROL MEASURES

Reference for Code of State Regulations	Title of State Regulation
10 CSR 10-2.040	Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

<b>Reference for Code of State Regulations</b>	<b>Title of State Regulation</b>
10 CSR 10-2.080*	Emission of Visible Air Contaminants From Internal Combustion Engines.
10 CSR 10-2.090**	Incinerators
10 CSR 10-2.100	Open Burning Restrictions
10 CSR 10-2.150	Time Schedule for Compliance
10 CSR 10-2.205	Control of Emissions From Aerospace Manufacture and Rework Facilities
10 CSR 10-2.210	Control of Emissions from Solvent Metal Cleaning
10 CSR 10-2.215	Control of Emissions from Solvent Cleanup Operations
10 CSR 10-2.220	Liquefied Cutback Asphalt Paving Restricted
10 CSR 10-2.230	Control of Emissions From Industrial Surface Coating Operations
10 CSR 10-2.260	Control of Petroleum Liquid Storage, Loading, and Transfer
10 CSR 10-2.280	Control of Emissions From Perchloroethylene Dry Cleaning Installations
10 CSR 10-2.290	Control of Emissions From Rotogravure and Flexographic Printing Facilities
10 CSR 10-2.300	Control of Emissions From the Manufacturing of Paints, Varnishes, Lacquers, Enamels and Other Allied Surface Coating Products
10 CSR 10-2.310	Control of Emissions From the Application of Underbody Deadeners
10 CSR 10-2.320	Control of Emissions From the Production of Pesticides and Herbicides
10 CSR 10-2.330	Control of Gasoline Reid Vapor Pressure
10 CSR 10-2.340	Control of Emissions From Lithographic Printing Facilities
10 CSR 10-2.360	Control of Emissions From Bakery Ovens.
10 CSR 10-2.390	Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws

\*In process of being rescinded from State regulations and replaced with 10 CSR10-6.220.

\*\*Rescinded from State regulations in 1991, but still in SIP.

### **2.2.2.2 FEDERAL CONTROL MEASURES**

This list contains the Federal motor vehicle emissions control measures that were in effect as of May 22, 2002, the date of the Public Notice and which were relied on in the mobile emissions projection calculations using MOBILE6.

#### **Tier I**

Heavy Duty Diesel rule starting mid-year 1991

National Low Emission Vehicles (mid-year-1997 for New England States and mid-year 2001 for USA)

Onboard Refueling Vapor Recovery (ORVR) (phase in with 40% of mid-year-1998)

#### **Tier II**

Heavy Duty Diesel rule starting with mid-year 2004

Heavy Duty Diesel rule starting with mid-year 2007

The department's Air Pollution Control Program will maintain all of the control measures listed in this section to ensure maintenance of the one-hour ozone NAAQS. Revisions to the control measures included in the maintenance plan will be submitted to the EPA for inclusion in the Missouri State Implementation Plan. The revisions will be accompanied with documentation showing that such a change will not interfere with maintenance of the NAAQS. The department's Air Pollution Control Program has the necessary resources to enforce any violation of its rules or permit provisions and intends to continue enforcing all rules or permit provisions that relate to the emission of ozone precursors in the KCMA.

## **2.3 TRACKING PLAN'S PROGRESS & INVENTORY PROVISION**

### **2.3.1 TRACKING THE PLAN'S PROGRESS**

#### **2.3.1.1 TRACKING METHODS**

The primary tracking plan for the KCMA consists of continuous ozone monitoring. The ongoing regional transportation planning process carried out by the MARC, in coordination with the KDHE, the department's Air Pollution Control Program, and EPA, will serve as another means of tracking mobile source VOC and NOx precursor emissions into the future. Since revisions to the region's transportation improvement programs are prepared every two years, and must go through a transportation conformity finding, this process will be used to periodically review progress toward meeting the VMT and mobile source emissions projections in this maintenance plan.

Specifically, the Kansas City ozone-monitoring network consists of six monitors. Two monitors, in Liberty and Watkins Mill Park, are placed downwind, assuming winds are predominantly from the southwest, to record peak afternoon readings. Two monitors are placed in populated areas, at Rocky Creek (previously located at Worlds of Fun) and Kansas

City International Airport (KCI). One monitor is placed upwind, at Richards Gebaur Air Force Base (AFB), to monitor ozone transport from outside the area. The final monitor is in downtown Kansas City, Kansas, in Wyandotte County.

The Kansas City Missouri Health Department maintains the monitors at Rocky Creek and KCI. The department's Air Pollution Control Program operates the Liberty and Watkins Mill Park monitors. The monitor in Kansas City, Kansas is operated by the Wyandotte County Department of Air Quality. The monitor at Worlds of Fun was moved to a new site called Rocky Creek early 2002. It is now located at 13131 NE 169th Highway, Kansas City, MO 64141- Clay County.

### **2.3.1.2 AMBIENT AIR MONITORING**

The Clean Air Act Amendments of 1977 established the NAAQS for ozone as 0.12 parts per million (ppm). A single monitor is allowed to experience an average of one exceedance of the standard each year over a three-year period. The fourth exceedance in a three-year period is considered a violation of the ozone standard. An ozone reading of higher than 0.125 ppm is considered an exceedance as it is rounded to 0.13 ppm. It is a misunderstanding to consider a value of 0.124 ppm as an exceedance for it is not interpreted as an exceedance. Because the standard is 0.12 ppm, a value must be 0.125 or higher in order to be counted as an exceedance. This is due to the rounding convention of the standard. It is important to understand the rounding convention when evaluating the data. Upon reviewing the data that generated Table 2, it was common to see values between 0.12 and 0.124 that are not counted as exceedances because of the rounding convention.

The number of ozone exceedances during the ozone seasons from 1991 through 2001 is listed in Table 1. The numbers of exceedances are reported by monitor. All exceedances must come from the same monitor; exceedances are not summed across monitors. The states of Kansas and Missouri along with the EPA conducted a monitoring network review during 2000. The department's Air Pollution Control Program has made recommendations to change the monitoring network to relocate and add monitors. These changes to the network are intended to allow for enhanced regional location and diverse meteorological condition coverage.

The KCMA has experienced seven exceedances of the ozone standard since 1997. Five of these exceedances occurred in 1998. The Liberty site had two exceedances and Watkins Mill Park sites (Lawson) experienced one exceedance in 1998. The Wyandotte site in Kansas registered two exceedances and the KCI Airport site had one exceedance in 1998. The KCI Airport and the Richards Gebaur AFB monitors each experienced an exceedance during the 2000 ozone season. During 1999 and 2001, none of the monitoring sites in the maintenance plan area recorded exceedances of the NAAQS.

The value of the exceedances for the time period 1982 to 2001, from the first highest to the fourth highest exceedance for each year, are found in Table 2. The exceedances range from 0.13 to 0.17 ppm, with the majority being in the 0.13 to 0.14 range.

**Table 1 Ozone Exceedances by Year in KC Maintenance Area**

Maintenance Monitors Site Address	Year of Ozone Monitoring (April 1 to October 31)											
Missouri	1991	92	93	94	95	96	97	98	99	00	01	
Liberty-Hwy 33 and County Hwy	0	0	1	0	3	0	1	2	0	0	0	
Lawson-Watkins Mill State Park Road	0	0	0	0	3	0	0	1	0	0	0	
Kansas City-49 <sup>th</sup> and Winchester Worlds of Fun	0	0	0	0	2	0	0	0	0	0	0	
Kansas City-Richards Gebaur AFB	1	0	0	0	0	0	0	0	0	1	0	
Kansas City-11500 N. 71 Hwy Kansas City International Airport	0	1	0	0	1	0	1	1	0	1	0	
Kansas	1991	92	93	94	95	96	97	98	99	00	01	
Wyandotte County Ann Avenue	0	0	1	0	0	1	0	1	0	0	0	
Total	1	1	2	0	6	1	2	4	0	1	0	

The monitor at Liberty has historically been the source of violations. This monitoring site recorded violations in the three-year periods 1982 through 1985, 1983 through 1986, 1986 through 1988, 1993 through 1995 and 1995 through 1997. The Worlds of Fun monitoring site experienced a violation in the monitoring period from 1986 through 1988.



**Table 2 Ozone Exceedances by Monitor in the KCMA**

Monitor Location	Year	1 <sup>st</sup> High	2 <sup>nd</sup> High	3 <sup>rd</sup> High	4 <sup>th</sup> High	Total
Richards Gebaur AFB (Jackson County)	1982					0
	1983					0
	1984	0.15*				1
	1985					0
	1986					0
	1987					0
	1988					0
	1989					0
	1990					0
	1991	0.13				1
	1992					0
	1993					0
	1994					0
	1995					0
	1996					0
	1997					0
Richards Gebaur South (Jackson County)	1998					0
	1999					0
	2000					1
	2001	0.15				0

\*Parts Per Million

Monitor Location	Year	1 <sup>st</sup> High	2 <sup>nd</sup> High	3 <sup>rd</sup> High	4 <sup>th</sup> High	Total
County Home Road Liberty, MO (Clay County)	1982					0
	1983	0.14*	0.13	0.13		3
	1984	0.17	0.14	0.14		3
	1985					0
	1986	0.13				1
	1987					0
	1988	0.15	0.15	0.13		3
	1989					0
	1990					0
	1991					0
	1992					0
	1993	0.13				1
	1994					0
	1995	0.16	0.13	0.13		3
	1996					0
	1997	0.13				1
	1998	0.14	0.13			2
	1999					0
	2000					0
	2001					0

**Table 2 Ozone Exceedances by Monitor in the KCMA (cont.)**

Monitor Location	Year	1 <sup>st</sup> High	2 <sup>nd</sup> High	3 <sup>rd</sup> High	4 <sup>th</sup> High	Total
Watkins Mill Park (Clay County)	1982					0
	1983					0
	1984	0.16*	0.13	0.13		3
	1985					0
	1986					0
	1987					0
	1988	0.17	0.15	0.14		3
	1989					0
	1990					0
	1991					0
	1992					0
	1993					0
	1994					0
	1995	0.16	0.13	0.13		3
	1996					0
	1997					0
	1998	0.13				1
	1999					0
	2000					0
	2001					0

\*Parts Per Million

Monitor Location	Year	1 <sup>st</sup> High	2 <sup>nd</sup> High	3 <sup>rd</sup> High	4 <sup>th</sup> High	Total
Worlds of Fun Kansas City, MO (Clay County)	1982					0
	1983					0
	1984					0
	1985					0
	1986	0.13*	0.13			2
	1987	0.13				1
	1988	0.14	0.13			2
	1989					0
	1990	0.13				1
	1991					0
	1992					0
	1993					0
	1994					0
	1995	0.13	0.13			2
	1996					0
	1997					0
	1998					0
	1999					0
	2000					0
	2001					0

**Table 2 Ozone Exceedances by Monitor in the KCMA (cont.)**

Monitor Location	Year	1 <sup>st</sup> High	2 <sup>nd</sup> High	3 <sup>rd</sup> High	4 <sup>th</sup> High	Total
KC International Airport Kansas City, MO (Platte County)	1982					0
	1983					0
	1984	0.13*	0.13			2
	1985					0
	1986					0
	1987					0
	1988					0
	1989					0
	1990	0.14				1
	1991					0
	1992					0
	1993					0
	1994					0
	1995	0.13				1
	1996					0
	1997	0.13				1
	1998	0.13				1
	1999					0
	2000	0.13				1
	2001					0

\*Parts Per Million

Monitor Location	Year	1 <sup>st</sup> High	2 <sup>nd</sup> High	3 <sup>rd</sup> High	4 <sup>th</sup> High	Total
619 Ann Ave. Kansas City, KS (Wyandotte County)	1982					0
	1983	0.13*				1
	1984					0
	1985					0
	1986	0.15	0.14			2
	1987	0.13				1
	1988					0
	1989	0.14				1
	1990					0
	1991					0
	1992					0
	1993	0.13				1
	1994					0
	1995					0
	1996	0.13				1
	1997					0
	1998	0.14				1
	1999					0
	2000					0
	2001					0

**Table 2 Ozone Exceedances by Monitor in the KCMA (cont.)**

Monitor Location	Year	1 <sup>st</sup> High	2 <sup>nd</sup> High	3 <sup>rd</sup> High	4 <sup>th</sup> High	Total
Total Monitors	1982					0
	1983					4
	1984					9
	1985					0
	1986					5
	1987					2
	1988					8
	1989					1
	1990					2
	1991					1
	1992					1
	1993					2
	1994					0
	1995					9
	1996					1
	1997					2
	1998					5
	1999					0
	2000					2
	2001					0

Design values are used as indicators of air quality. The higher the design value implies poorer the air quality. Each monitor in the Kansas City area has a design value and the entire KCMA has a design value. A monitor's design value is defined as the ozone concentration that would only be expected to be exceeded once per year on average over a three-year period. A monitor's design value is the "fourth highest ozone concentration value" recorded in the past three years. The design value is an indicator of the expected ozone value for the area. This design value is not determined based on any other monitor's "fourth highest ozone concentration value."

The design value for the maintenance area is the maximum "fourth highest ozone concentration value" of all the individual monitors for the maintenance area. The maintenance area's design value is the highest individual monitor design value for each three-year monitor period. Attainment or nonattainment status is determined by the individual air monitor with the highest design value for a three-year period. If the individual air monitor site has no more than one exceedance per year on average, it has attained the NAAQS for ozone. Note that a site exceeds the NAAQS if its fourth highest value is at least 125 parts per billion (ppb), which is the effective level of the standard. Section 181 of the Clean Air Act Amendments describes the areas designated as nonattainment for ozone. They are classified as marginal, moderate, serious, severe, and extreme, based on area design values. From 1996 through September 30, 2001, the design values were below the value established in the amendments to the CAA for classifying the area as marginal nonattainment area. Table 3 contains a listing of the design values for the KCMA for the time periods from 1982 through 2001.

**Table 3 Ozone Design Values for the KCMA**

3-Year Time Period	Maintenance Area Design Value)
1982 through 1984	0.14*
1983 through 1985	0.14
1984 through 1986	0.13
1985 through 1987	0.12
1986 through 1988	0.13
1987 through 1989	0.12
1988 through 1990	0.12
1989 through 1991	0.11
1990 through 1992	0.11
1991 through 1993	0.11
1992 through 1994	0.11
1993 through 1995	0.13
1994 through 1996	0.12
1995 through 1997	0.13
1996 through 1998	0.12
1997 through 1999	0.12
1998 through 2000	0.12
1999 through 2001	0.12

(\* In Parts Per Million)

**2.3.1.3 EXPECTED EXCEEDANCES/MISSING DATA**

In addition to recorded exceedances, a region is allowed an average of one expected exceedance per year over a three-year period. An expected exceedance can occur when a monitor has missing data. Missing data is the result from a malfunction at a monitor, incorrect calibration standards, or acts of nature.

The EPA will look at the day prior to the missing data and the day following to determine if the highest recorded ozone reading for each day is 75% of the ozone standard. If both days meet the 75% test then the "missing" data can be discounted.

The KCMA has had "missing" data problems twice in recent history. The Liberty monitoring site experienced a period of 32 days in 1988, and the Worlds of Fun monitoring site missed 45 days in 1990. In both cases, the EPA was able to discount the episode as a violation of the standard through additional analysis. The KCMA has not experienced any extended period of "missing" data since the 1990 episode, but Kansas City has had equipment malfunctions the last two years that resulted in extended (longer than one day) periods of no data. In all cases, the missing data was discounted.

**2.3.2 PROVISION FOR EMISSION INVENTORY UPDATES**

An emission inventory is an itemized list of emission estimates for sources of air pollution in a given area, for a specified time period. The inventory is divided into stationary sources (point, area and biogenic) and mobile sources. The department's Air Pollution Control Program realizes the importance of a quality up-to-date emissions inventory in planning for air quality. Therefore, the department's Air Pollution Control Program commits to updating the emissions inventory to enable tracking of emission levels for the KCMA every three

years for the next ten years or the life of this plan. This emissions inventory update will include point, area, mobile and biogenic emission revisions.

## **2.4 EMISSION INVENTORY AND MOTOR VEHICLE BUDGETS**

### **2.4.1 EMISSION INVENTORY**

The base year for the new inventory is 1999. No violations of the one-hour ozone standard occurred during the 1998-1999 period. The region was in compliance with the one-hour ozone standard.

An ozone emissions inventory was prepared for the KCMA for calendar year 1999. The inventory addresses emissions of VOC, NO<sub>x</sub>, and carbon monoxide (CO) from point, area, on-road mobile, and off-road mobile sources. VOC emissions from biogenic sources are also addressed. The complete KCMA inventory includes emissions from Johnson and Wyandotte counties in Kansas and Clay, Jackson, and Platte counties in Missouri. This report covers the Missouri counties in the KCMA only.

The objectives of the inventory are to support the revision of the KCMA maintenance plan as required by CAA Section 175A(b) and to provide emissions data for transportation planning in the KCMA. In addition, the inventory may be used in future regional ozone modeling applications.

Emissions were also projected to year 2012 to provide the basis for establishing new motor vehicle emissions budgets. 1999 emissions are reported as actual annual emissions in tons per year and actual summer weekday emissions in pounds or tons per osd. Projected emissions are reported as pounds per osd or tons per osd.

The 1999 KCMA emissions inventory was a cooperative effort among MARC, KDHE, the department's Air Pollution Control Program, and EPA Region VII. MARC coordinated the effort and developed the on-road and off-road mobile source emissions estimates for the five-county area. The department's Air Pollution Control Program developed the point, area, and biogenic source emissions estimates for Clay, Jackson, and Platte counties (See Appendix C). KDHE prepared the point, area, and biogenic source emissions estimates for Johnson and Wyandotte counties. KDHE also developed locomotive emissions estimates for the two Kansas counties. EPA Region VII drafted the inventory preparation plan.

The ozone season daily emissions are presented in tons per osd because of the magnitude of the numbers; elsewhere in this document, ozone season day emissions are in units of pounds per osd. An emission inventory lists all sources of specific air pollutants in a given area and the amount of each source emits. The two main or most important pollutants that lead to the formation of ground-level ozone are VOC and NO<sub>x</sub>. An Ozone emissions inventory was prepared for the KCMA for calendar year 1999. The inventory addresses emissions of VOC, NO<sub>x</sub> and CO from point, area, on-road mobile and off-road mobile sources.

Area sources are small, stationary sources that do not emit large amounts of pollution but are very numerous. Examples include dry cleaners, printers, bakeries, and automobile

painting and repair shops. Consumers that consume household items that contain VOC and NOx are an area source.

Point sources are large industrial pollution emitters and power plants. On-road mobile sources include cars and light trucks, as well as medium and heavy-duty commercial trucks. Off-road mobile sources include aircraft, railroad locomotives, watercraft, construction, and agricultural equipment.

VOC emissions from biogenic sources are also addressed. The complete KCMA inventory includes emissions from Johnson and Wyandotte counties in Kansas and Clay, Jackson and Platte counties in Missouri.

The 1999 emissions are reported as actual annual emissions in tons per year and actual summer weekday emissions in pounds per OSD. 2012 emissions projections are reported as pounds per osd. EPA Region VII drafted the inventory preparation plan.

**Table 4 1999 and 2012 VOC, NOx & CO Emissions for MO**

Source of Emissions	1999 Daily Emissions (tons/osd)			2012 Daily Emissions (tons/osd)		
	VOC	NOx	CO	VOC	NOx	CO
On-road Mobile*						
Off-road Mobile	21.6	54.9	286.4	12.9	45.5	354.5
Biogenic	73.05	-----	-----	73.05	-----	-----
Area	43.1	13.0	5.3	54.3	13.8	5.5
Point	15.9	107.2	9.7	24.6	148.2	14.0
Total	153.65	175.1	301.4	164.85	207.5	374.0

\* Due to model limitations, on-road mobile emissions are not broken out into individual counties for 1999 and 2012.

**Table 5 1999 and 2012 VOC, NOx & CO Emissions for KS**

Source of Emissions	1999 Daily Emissions (Tons/osd)			2012 Daily Emissions (Tons/osd)		
	VOC	NOx	CO	VOC	NOx	CO
On-road Mobile*						
Off-road Mobile	21.4	54.0	288.0	11.8	40.5	357.3
Biogenic	40.8	-----	-----	-----	-----	-----
Area	46.8	10.3	19.6	57.9	12.2	22.2
Point	12.3	31.9	4.6	14.8	39.0	5.3
Total	121.3	96.2	312.2	84.5	91.7	384.8

\* Due to model limitations, on-road mobile emissions are not broken out into individual counties for 1999 and 2012.

**Table 6 1999 and 2012 VOC, NO<sub>x</sub> & CO Emissions for KCMA**

Source of Emissions	1999 Daily Emissions (Tons/OSD)			2012 Daily Emissions (Tons/OSD)		
	VOC	NO <sub>x</sub>	CO	VOC	NO <sub>x</sub>	CO
On-road Mobile*	92.3	152.9	1092.4	45.5	74.2	579.0
Off-road Mobile	43.0	108.9	574.4	24.7	86.0	711.8
Biogenic	113.85	-----	-----	113.85	-----	-----
Area	89.9	23.3	24.9	112.1	26.0	27.7
Point	28.3	139.1	14.3	39.4	187.2	19.3
Total	367.35	424.2	1706.0	335.55	373.4	1337.8

#### **2.4.1.1 MOBILE SOURCE EMISSIONS**

On January 29, 2002, the EPA released the MOBILE6 motor vehicle emissions model. EPA guidance issued along with the model grants a two-year grace period before use of the MOBILE6 model is required in the State Implementation Plan development. The 2002 revision of the Kansas City Maintenance Plan used MOBILE6 in the development of the mobile budgets in the plan. The 2002 revision of the Kansas City Maintenance Plan did not use MOBILE5 and MOBILE5B to develop the budgets or for any projection of mobile emissions. The two-year grace period does not apply to this plan as only MOBILE6 was used in the development of the Kansas City Maintenance Plan. Appendix D contains the parameters chosen for operation of MOBILE6 and for the calculation of emission projections. The MOBILE6 inputs are: default vehicle age distribution; 7.2 RVP fuel assumed in 1999; 7.0 RVP fuel assumed in 2012; refueling emissions not included (inventoried separately as area source). The draft NONROAD model that was released in June 2001 in support of the 2007 heavy-duty vehicle rule was used to generate 1999 and 2012 emissions estimates for all off-road mobile source categories covered in the non-road model.

The CAAA mandated the EPA to study and regulate emissions from off-road mobile sources. Section 213(a) of the CAAA required the EPA to conduct a study to determine if emissions from off-road engines and vehicles cause or significantly contribute to air pollution. The non-road study was completed in 1991. The EPA constructed two sets of emissions inventories for the entire country and for 19 ozone non-attainment areas and for 16 carbon monoxide non-attainment areas. The local areas were selected to represent a variety of demographic and geographic regions, as well as the major air pollution problems in the nation.



### 2.4.1.2 *BIOGENIC EMISSIONS*

Biogenic sources are those of natural sources which result from some sort of biological activity. Vegetation such as forest plants, urban trees, shrubs, agricultural crops, and other plants is the predominant, biological activity of VOC. These biogenic emissions are emitted as the plant transpires, mostly during the daylight hours.

In the past, the impacts of biogenic VOC were not considered when ozone control strategies to limit emissions of either NO<sub>x</sub> or VOC were developed. However, the importance of biogenic VOC emissions in an ozone inventory became apparent in some regions when the biogenic VOC emission estimates were compared to the anthropogenic VOC emission estimates (Chameides et al., 1988).

Biogenic emission estimates for the United States have been reported at 30,860,000 tons of VOC per year and 346,000 tons of NO<sub>x</sub> per year (Novak et al., 1993). This is in comparison to estimates of 21,090,000 tons of anthropogenic VOC and 23,550,000 tons of anthropogenic NO<sub>x</sub>, estimated for 1990 (EPA, 1994). Isoprene, one of the major constituents of biogenic emissions, is very photoreactive, making biogenic emissions an even more important source of VOC. Because of the interaction between NO<sub>x</sub> and VOC in terms of atmospheric ozone levels, biogenic emissions should be included in any inventory, which will be used to predict or to monitor atmospheric ozone levels. Inclusion of biogenic emissions is essential for photochemical air quality modeling.

The Biogenic Emissions Inventory System (BEIS-2) is the preferred method for air quality models using biogenic estimates, because it is the most scientifically advanced model for estimating biogenic ozone precursors. It can be used with several air quality models, and it estimates emissions of soil NO<sub>x</sub>, which can be an important source in many rural areas. The Personal Computer version Biogenic Emissions Inventory System (PCBEIS2.2) is the preferred method when an emission estimate is needed for reporting purposes only. The Biogenic Model for Emissions (BIOME) model, the collection of local data for use in any of these models, and BEIS, the precursor of BEIS-2, are alternative methods.

The Personal Computer version of the Biogenic Emissions Inventory System (BEIS 2.3) allows users to estimate hourly emissions of biogenic VOC and soil NO<sub>x</sub> emissions for any county in the contiguous United States. This system was developed by EPA Office of Research and Development via collaboration between the National Risk Management Research Laboratory, Emissions and Modeling Branch and the National Exposure Research Laboratory, Atmospheric Modeling Division. BEIS 2.3 has been written in C++/JAVA to allow better operability with current PC operating systems and to take advantage of more recent approaches in object-oriented programming. BEIS 2.3 uses the same emission factors and land use data as PCBEIS 2.2 and should produce very similar results.

Meteorological data for air temperature and cloud cover was incorporated specifically for the Kansas City area covering Jackson County. The biogenic emissions for the Kansas counties in the KCMA are 40.8 tons per ozone season day. The biogenic emissions for the Missouri counties in the KCMA are 73.05 tons per ozone season day. Combined, all counties in the KCMA have total biogenic emissions of 113.05 tons per ozone season day. (See Tables 4, 5 and 6)

### 2.4.1.3 AREA SOURCE EMISSIONS

The area source inventory (see Appendix B and C) is reported in terms of VOC emissions for the Missouri Counties in the KCMA, the Kansas Counties in the KCMA, and the entire KCMA. These totals are shown in tables 4 and 5, and 6 respectively.

The area source inventory includes small point sources, those sources with less than ten tons of actual emissions, as well as sources not reported in the point source description. Examples of sources included in the area source emissions include, but are not limited to: printing presses, dry cleaning facilities, degreasing operations, incinerators, and painting operations. The individual area source categories are compared to their respective point source categories to eliminate double counting of VOC emissions.

The area source inventory was prepared using 1999 as a base year. The 1999 inventory was evaluated for rule effectiveness using the criteria outlined by the EPA. The area source categories included in this inventory were identified based on a review of the previous area source inventory done for the region and judgement based on knowledge of population and types of emissions sources in Johnson and Wyandotte counties (see reference 1). EPA guidance regarding the expected magnitude of VOC, NO<sub>x</sub>, and CO emissions from area source categories was also considered (see reference 2). The area source categories expected to emit the most significant amounts of VOC, NO<sub>x</sub>, and CO were given the highest priority in this inventory.

For many of the area source categories, emissions estimation methodologies outlined in the *Emissions Inventory Improvement Program* (EIIP) documents were followed. In some cases, a methodology given in the EIIP was impractical due to the quality of data available or the level of effort required for data collection. An alternate methodology was then chosen or developed based on the available data.

Because some area source methodologies estimate emissions from all sources within the category, emissions already listed in the point source inventory may be double-counted. In the development of the area source inventory for Johnson and Wyandotte counties, emissions from point sources were subtracted from the area source emissions where it could be determined that the two inventories overlapped (see Appendix B).

Emissions estimates for several of the area source categories were calculated using population as a surrogate for activity. The 1999 population estimates were obtained from the U.S. Census Bureau (see reference 3). The 2000 and 2012 population forecasts are from MARC policy-based, long-range population forecasts (see reference 4). Since the MARC forecast is done in ten-year increments, the 2012 forecast was interpolated from the 2010 and 2020 forecasts. In cases where population was used as a basis for the emissions projections, the forecast for calendar year 2000 was used as the base year because it is the base year of MARC population forecast.

### 2.4.1.4 POINT SOURCE EMISSIONS

Point source emissions are collected each year, in **Missouri**, via the Emission Inventory Questionnaire (EIQ). All facilities in Missouri that have the potential to emit more than 40 tons of VOC per year are required to submit an EIQ. Facilities with less than 10 tons of actual VOC emissions per year are included in the area source inventory.

Missouri's portion of the 1999 point source inventory for the KCMA includes Jackson County, Platte County, and Clay County (see Appendix C). The report in Appendix C includes CO, NO<sub>x</sub>, and VOC emissions from point sources in the three county areas as reported by the facility. The inventory data was obtained from the EIQs. EIQs are submitted on an annual basis by point sources to report air pollutant emissions from processes within the facility. The completed EIQs are submitted to the Kansas City Health Department or the department's Air Pollution Control Program depending on location. The department's Air Pollution Control Program compiles the local data and the submitted data into a database. The department's Air Pollution Control Program performs the overall quality assurance/quality compliance.

The Missouri portion of the KCMA inventory consists of point sources that emitted VOC, NO<sub>x</sub>, and CO in the three county areas. The data was obtained from the department's Air Pollution Control Program Emission Inventory System (moeis) database. The information in Appendix C is based on the EIQ information data entered into the department's Air Pollution Control Program's database, including the EIQs submitted to the Kansas City Health Department.

#### 2.4.1.4.1 APCP Point Source Emissions Calculation Method

The actual annual emissions reported were used to calculate an ozone season daily emission rate based on the percentage of operating time during the summer months of June through August. The following equation was used:

$$1999 \text{ osd emissions} = (1999 \text{ annual emissions}) \times (2,000 \text{ lbs/1 ton}) \times (\text{Summer operating \% / Days of operation})$$

Emissions projections for calendar year 2012 were performed using the Department of Commerce's Bureau of Economic Analysis (BEA) growth factors. BEA factors were derived for each Source Classification Code (SCC) and county combination using EPA Economic Growth Analysis System (EGAS) v4.0 software. Growth of emissions was normalized to the 1999 inventory base year because EGAS v4.0 has a base year of 1996. The following equation was used for the emissions projections:

$$2012 \text{ osd emissions} = (1999 \text{ osd emissions}) \times (2012 \text{ growth factor} / 1999 \text{ growth factor})$$

Below is an example calculation showing the manner in which the 1999 NO<sub>x</sub> Emissions are calculated for a Point Source. This example is for a **Missouri** facility that emitted 8.259 tons of NO<sub>x</sub> in 1999. The facility operated seven days per week in 1999, during this quarter 18% of the facility's annual operations occurred.

$$1999 \text{ osd emissions} = (8.259 \text{ tons NO}_x/\text{yr.}) \times (2,000 \text{ lbs/1 ton}) \times (0.18 / (7 \text{ days/week} \times 13 \text{ weeks/ozone season}))$$

$$= 32.7 \text{ lbs. NO}_x/\text{osd}$$

Below is an example calculation showing the manner in which the 2012 NO<sub>x</sub> Emissions are calculated for a Point Source. A facility located in Jackson county with two-digit SIC 20 emits 262.4 lbs. NO<sub>x</sub>/osd. BEA growth factors for SIC 20 in Jackson county are 1.0621 and 1.4241 for 1999 and 2012 respectively.

$$2012 \text{ OSD emissions} = (262.4 \text{ lbs. NO}_x/\text{osd}) \times (1.4241 / 1.0621)$$

$$= 352 \text{ lbs. NO}_x/\text{OSD}$$

Appendix B summarizes 1999 and 2012 annual and ozone season daily VOC, NO<sub>x</sub>, and CO emissions from point sources by two-digit Standard Industrial Classification (SIC) code and county.

#### **2.4.1.4.2 KDHE Point Source Emissions Calculation Method**

Kansas and Missouri for all practicable purposes used the same calculation methods. Examples are provided of MO and KS calculation methods to demonstrate the slight differences in original data. Kansas point source emissions were taken from KDHE I-Steps emissions inventory database for calendar year 1999 (see reference 5). The reported emissions represent the results from facility surveys of actual annual emissions emitted in 1999. The actual annual emissions were used to calculate an ozone season daily emission rate based on the days of operation and the percentage of operating time during the summer months of June through August. The following equation was used:

$$1999 \text{ OSD emissions} = (1999 \text{ annual emissions}) \times (2,000 \text{ lbs/1 ton}) \times (\text{Summer operating \%}/\text{Days of operation})$$

Emissions projections for calendar year 2012 were performed using the Department of Commerce's BEA growth factors. BEA factors were derived for each SCC and county combination using EPA EGAS v4.0 software (see reference 6). The BEA growth factors are developed from the EPA model. The growth factors are used in the projection of emissions for the area. Growth of emissions was normalized to the 1999 inventory base year because EGAS v4.0 has a base year of 1996. The following equation was used for the emissions projections:

$$2012 \text{ osd emissions} = (1999 \text{ osd emissions}) \times (2012 \text{ growth factor}/1999 \text{ growth factor})$$

Below is an example calculation showing the manner in which the 1999 NO<sub>x</sub> Emissions are calculated for a Point Source. This example is for a facility that emitted 8.259 tons of NO<sub>x</sub> in 1999. The facility operated 65 days from June through August 1999, which represents 18% of the facility's annual operations.

$$\begin{aligned} 1999 \text{ osd emissions} &= (8.259 \text{ tons NO}_x/\text{yr.}) \times (2,000 \text{ lbs/1 ton}) \times (0.18/65 \text{ days}) \\ &= 45.7 \text{ lbs. NO}_x/\text{osd} \end{aligned}$$

Below is an example calculation showing the manner in which the 2012 NO<sub>x</sub> Emissions are calculated for a Point Source. A facility located in Kansas Wyandotte county with SCC 10200602 emits 45.7 lbs. NO<sub>x</sub>/osd. BEA growth factors for SCC 10200602 in Wyandotte county are 1.0162 and 1.1578 for 1999 and 2012, respectively.

$$2012 \text{ osd emissions} = (45.7 \text{ lbs. NO}_x/\text{osd}) \times (1.1578/1.0162) = 52.1 \text{ lbs. NO}_x/\text{osd}$$

### **2.4.2 NEW MOBILE SOURCE BUDGETS**

#### **2.4.2.1 EXISTING MOBILE SOURCE BUDGET**

The existing budgets for 2000 and 2010 were calculated in 1995. In that exercise, the 1990 level of emissions was assumed to keep the region in compliance with the one-hour ozone standard and was used as a cap on overall emissions through 2010. The 2010 level of emissions was less than the emissions in 1990, and the difference was quantified as a margin,

which allowed for some growth in emissions from all sectors in 2010. Approximately one-third of the margin, which was the percent of overall emissions contributed by vehicles, was specifically allocated to motor vehicles. The motor vehicle emissions budget was the projected on-road mobile emissions in 2010 (assuming transportation investments through 2010) plus the motor vehicle proportion of the margin (allowing for growth in mobile emissions). A conformity analysis is a demonstration that the regional emissions from proposed transportation projects would not exceed the motor vehicle emissions budgets. The emission inventory provides a basis for establishing new motor vehicle emission budgets, which are used to demonstrate consistency between the region's air quality goals and emissions expected from implementation of transportation plans and programs.

A plan revision submitted by the state in 1995 and approved by EPA (61 FR18251 on April 25, 1996) establishes the current motor vehicle emissions budgets used to ensure that transportation plans conform to the ozone maintenance plan, see 40 CFR 52.1321(e). The current budgets are shown in the following table:

Motor Vehicle Emissions Budget for Conformity Purposes	
Compounds	2000 Attainment MVEB for the KCMA
Non-methane hydrocarbons	87,548 kg/summer day (96.3 tpd)
NOx	119,889 kg/summer day (131.9 tpd)

In June 2002, the MARC Board proposed motor vehicle emissions budgets based on updated emissions inventories prepared collaboratively by staff from the Kansas and Missouri State air agencies, MARC, and EPA. The proposed budgets were based on population and employment forecasts adopted by the MARC board in January 1998.

The new budgets incorporate updated planning assumptions and use the MOBILE6 model, which became available in January 2002. The new budgets are set to keep total emissions below their estimated level in 1999 (see Appendix I). The last horizon year of the proposed SIP is 2012.

The mobile budgets are calculated by starting with the on-road mobile 2012 totals for VOC, NOx, and adding an extra amount over and above what is necessary, for safety reasons or to allow for delays. The extra amount is called the margin. The amount of margin to add could be derived using a variety of methods. A simple and easily explained calculation method would help in calculating and communicating the budgets. In the recent past the VOC budget, NOx budgets and margins have been tied together by ratios of reductions between the beginning and last years. The margin for this mobile budget was determined by recognizing the NOx budget has led to conformity issues in the past and coupling the acquired understanding of the regions ozone level, which is thought to be VOC limited. The margin should take into account, that any additional lowering of the VOC margin would have more of an impact to regional air quality than placing tighter constraints on NOx emissions. A method was chosen that would accommodate a lower VOC margin and allow for the NOx emission levels required to maintain conformity and be easy to calculate and communicate.

The amount of margin chosen for this new budget was based on a straight percent of the conformity calculation amounts determined for 2010. The last horizon year for the existing SIP is 2010. The amount of the 2010 conformity emission levels was supplied by MARC and is 89.6 NOx ton/osd and 51.1 VOC ton/osd. A margin of 0.091 of the 2010 NOx and a

margin of 0.07 of the VOC was determined by the inter-agency consultation group process. The 2012 NOx budget from the 1999 budget levels represents a 26.2 percent reduction while the 2012 VOC budget represents a 40 percent reduction. The 1999 mobile emission budgets are 132.4 NOx tons/osd and 91.4 VOC tons/osd while the new 2012 budgets are 97.8 NOx tons/osd and 54.7 VOC tons/osd.

97.8 NOx tons/osd 2012 divided by 132.4 NOx tons/osd 1999 equals 0.738

54.7 VOC tons/osd 2012 divided by 91.4 VOC tons/osd 1999 equals 0.598

(1 minus 0.738) multiplied by 100 equals 26.2 % reduction of NOx from 1999 to 2012

(1 minus 0.598) multiplied by 100 equals 40.2 % reduction of VOC from 1999 to 2012

#### **2.4.2.2 NEW MOBILE SOURCE BUDGET CALCULATIONS**

##### **2.4.2.2.1 NOx Calculation**

A. NOx projected emission level needed for conformity in 2010 (Provided by MARC).

2010 Total Mobile NOx is 89.6 multiplied by 0.091 equals 8.153 tons/osd NOx margin

$$89.6 \text{ tons/osd} \times 0.091 = 8.153 \text{ tons/osd}$$

B. Add the margin to the 2010 NOx projected mobile emission total

$$89.6 \text{ tons/osd} + 8.153 \text{ tons/osd} = 97.75 \text{ or } 97.8$$

2012 Mobile Source NOx Budget: 97.8 tons/osd

##### **2.4.2.2.2 VOC Calculation**

A. VOC projected emission level needed for conformity in 2010 (Provided by MARC).

2010 Total Mobile VOC is 51.1 multiplied by 0.07 equals 3.57 tons/osd VOC margin

$$51.1 \text{ tons/osd} \times 0.07 = 3.57 \text{ tons/osd}$$

B. Add the margin to the 2010 VOC projected mobile emission total

$$51.1 \text{ tons/osd} + 3.57 \text{ tons/osd} = 54.67 \text{ tons/osd}$$

2012 Mobile Source VOC Budget: 54.7 tons/osd

## 2.5 CONTINGENCY MEASURES

When selecting control measures to implement in case of a violation of the ozone standard it is important to consider the implementation time frame. A contingency plan needs to contain control measures that can be implemented in a very short time and will demonstrate results quickly. Other control measures, which take substantially more time to be implemented, can also be included as secondary controls. It is important to concentrate on control measures that will achieve results throughout the area. Mobile source control measures are ideal for this reason.

The department's Air Pollution Control Program is obligated under the CAAA to set forth a plan to be implemented upon a violation of the ozone standard in the KCMA. The CAAA requires setting forth a group of specific control measures to be implemented in case of an ozone violation. A pattern of exceedances of the one-hour ozone NAAQS will trigger consideration of contingency measures. However, the only federally enforceable trigger for mandatory implementation of contingency measures shall be a violation of the one-hour ozone NAAQS.

After 2004, the contingency measures are triggered by different levels of corrective responses should the one-hour ozone NAAQS be exceeded or violated, or if emissions in the region increase significantly above current levels. A level 1 response would occur in the event that the ozone NAAQS establishes a pattern of exceedances, or if VOC or NOx emissions increase more than 5% above the levels contained in the attainment year (1999) emission inventory. To facilitate the emissions trends analysis, department's Air Pollution Control Program commits to compiling VOC and NOx emissions inventories every three years for the duration of the maintenance plan. Department's Air Pollution Control Program will coordinate with the state of Kansas and MARC to evaluate the causes of exceedances or the emission trends and to determine appropriate control measures needed to assure continued attainment of NAAQS for ozone.

A Level 2 response would be implemented in the event that a violation of the one-hour ozone NAAQS were to be measured at a monitoring site. In order to select appropriate corrective measures, department's Air Pollution Control Program will work with Kansas and MARC to conduct a comprehensive study to determine the cause of the violation, and the control measures necessary to mitigate the problem. The comprehensive analysis shall examine:

- 1) The number, location and severity of the ambient ozone concentration;
- 2) The weather patterns contributing to ozone levels;
- 3) Potential, contributing emissions sources;
- 4) The geographic applicability of possible contingency measures;
- 5) Emission trends, including timeliness of implementation of scheduled control measures;
- 6) Current and recently identified control technologies; and
- 7) Air quality contributions from outside the maintenance area.

Contingency measures shall be selected from those listed in the following table or from any other measure deemed appropriate and effective at the time of selection. Control measure selection shall be based upon cost-effectiveness, emission reduction potential,

economic and social considerations, ease of timing of implementation, and other appropriate factors. Implementation of controls shall take place as expeditiously as possible, but no later than 18 months after department's Air Pollution Control Program makes a determination, based on quality-assured ambient data, that a violation of NAAQS has occurred.

Adoption of additional control measures is subject to necessary administrative and legal process. MODNR will solicit input from all interested parties and affected persons in the area prior to selecting appropriate contingency measures. No contingency measures will be implemented without providing the opportunity for full public participation. This process will include publication of notices, an opportunity for public hearing, and other measures required by department's Air Pollution Control Program regulation.

### Contingency Plan for the Kansas City One-Hour Ozone Attainment Area

Year	Contingency Measure Trigger	Action to be Taken	List of Contingency Measures
2003 - 2004	Violation occurs anywhere within the maintenance area.	Depending upon the degree and nature of the transgression, the department will begin implementation of control measures sufficient to achieve at least a five-percent reduction in area wide emissions	Statewide NOx rule (MO) Federal Non-road Engine Standards One or more of the following will be considered for implementation: 1) industrial emission offsets of 1.15 to 1; 2) stationary source controls for NOx and VOC; 3) Stage II Vapor Recovery program at gasoline refueling stations; 4) enhanced vehicle emission reductions programs; 5) alternate fuel programs for fleet vehicle operations; 6) vehicle anti-tampering programs; 7) other transportation control measures; 8) vehicle inspection and maintenance program; 9) VOC controls on minor sources, and; 10) The department will further review and evaluate the current VOC rules to see if they need to be tightened, changed or modified.
2005 - 2012	Level I Trigger The KCMA NOx or VOC emissions inventories for 1999 increase more than 5% above the levels included in the 3-year emissions inventories updates.  A pattern of monitor exceedances.	MO will work cooperatively with KS to evaluate the exceedances of the 3-year inventory, or determine if adverse emissions trends are likely to continue. If so, the States will determine what and where controls may be required, as well as level of emissions reductions needed, to avoid a violation of the NAAQS. The study shall be completed within 9 months. If necessary, control measures shall be adopted within 18 months of determination.	Point Source Measures NOx SIP Call Phase II (non-utility) Reinstate requirements for Offsets and/or LAER Apply RACT to smaller existing sources Tighten RACT for existing sources covered by EPA CTGs. Expanded geographic coverage of current point source measures MACT controls for industrial sources Other measures to be identified  Mobile Source Measures Tier 2 Vehicle Standards and Low Sulfur Fuel Heavy Duty Diesel Standards and Low Sulfur Diesel Fuel TCMs, including, but not limited to, area-wide rideshare programs, telecommuting, transit improvements, and traffic flow improvements. Vehicle Testing (OBDII) California Engine Standards Other measures to be identified  Area Source Measures California Architectural/Industrial Maintenance (AIM) California Commercial and Consumer Products Broader geographic applicability of existing measures California Off-road Engine Standards Other measures to be identified
	Level II Trigger A violation of the Ozone NAAQS at any monitoring station in the KCMA.	MO will work cooperatively with KS to conduct a thorough analysis to determine appropriate measures to address the cause of the violation. Analysis shall be completed within 6 months. Selected measures shall be adopted within 18 months and implemented as expeditiously as practicable, taking into consideration the ease of implementation and the technical and economic feasibility of selected measures.	



## 2.6 PROVISION FOR OPERATION OF MONITORING NETWORK

The department's Air Pollution Control Program commits to continue monitoring ozone levels according to an EPA-approved monitoring plan, as required to ensure maintenance of the ozone NAAQS for the next ten years. Should changes become necessary concerning location of a monitoring station, the department's Air Pollution Control Program will work cooperatively with the EPA to ensure the adequacy of the monitoring network. The department's Air Pollution Control Program will continue to quality assure the monitoring data to meet the requirements of 40 CFR 58. The department's Air Pollution Control Program will continue to enter all data into the AIRS on a timely basis in accordance with federal guidelines.

Control strategies, area growth, and new source configurations have clearly changed the face of ozone formation in the area. Because of the changes, the Kansas City Area State and Local Agencies with the EPA Region VII decided that a review of the area network was of high priority, to determine if the continued network was adequate. Recommendations for network changes were submitted to the EPA on November 6, 2000. A letter from the EPA submitted on February 8, 2001, approved monitoring network changes.

Analysis tools used in the evaluation included basic statistical rankings of exceedances, design value trends, point source mappings, population, economic and mobile source information, and meteorological wind roses and trajectories. Based upon the examination of the data generated from using the tools, a best network configuration, which characterizes the ozone levels in the Kansas City Metropolitan Area, was obtained. A team of Kansas, the department's Air Pollution Control Program, and EPA staff collected and reviewed data and discussed potential recommendations. The most significant findings for the trajectory and the wind and episode analysis, coupled with the determination of the emissions centroid, is that some parts of the area appeared to be lacking in coverage for potential ozone episodes. The area due north of the centroid is the most predominant wind direction from emission sources and may be of great potential for exceedances. The area, near the Wyandotte-Leavenworth county line is also an area of concern. Precursor emissions in the metropolitan area, which may be affected by winds from the east-southeast, could lead to ozone exceedances in the area. Wind roses from that direction are also significant, as are forward trajectories for high ozone days. The conclusion of the monitoring network review is that one additional site should be located due north of the downtown core about 12-15 miles downwind. The monitoring equipment for this site originated from the current Worlds of Fun monitor site. The moving of Worlds of Fun site to the new site, which is called Rocky Creek, occurred in early 2002. The monitor at Rocky Creek is located at 13131 NE 169th Highway, Kansas City, MO 64141 with coordinates: 39 deg. 19 min 56 sec. NORTH latitude and 94 deg. 34 min 50 sec WEST longitude. Relocation of the Worlds of Fun site to a

second area of poor coverage, equidistant from the Liberty and KCI monitors, and in extreme northern extent of Kansas City, Missouri was necessary. This was due to the predominant wind direction from emission sources due south, and has a greater potential for exceedances. An alternative site was selected and approved by the EPA and KDHE near the City of Leavenworth in Leavenworth County. These locations will serve as maximum concentrations sites for the one-hour ozone NAAQS. The downwind distance from the urban area is critical to achieve the proper atmospheric mixing and allow photochemical reactions time to occur for high ozone concentrations. Based on the current network and past experiences, sites most distant to the north and west will not provide for maximum 1-hour ozone concentrations.

Finally, an additional site in southern Johnson County, Kansas would allow for evaluation of potential near term transport. An evaluation of the effect of local sources on Richards Gebauer Air Force Base would be possible.

Monitoring near Richards Gebauer has shown considerable trends in higher ozone levels, including recent exceedances. Therefore, the monitoring should continue at the site currently being operated. The state of Kansas has assumed the responsibility to install a background site in a location generally upwind of the majority of the area, near the southern Johnson County line. This site is presently under construction. This is expected to be a more suitable site for upwind monitoring for the area. In addition, it will increase the spatial coverage south of a part of the area which is experiencing considerable economic growth and potentially in ozone precursors.

## 2.7 CONFORMITY

The department's Air Pollution Control Program filed a transportation conformity regulation, 10 CSR 10-2.390 Conformity to State Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws, which became effective on December 30, 1996. This rule implements section 176(c) of the CAA, as amended (42 U.S.C. 7401-7671q.), the related requirements of 23 U.S.C. 109(j) and regulations under 40 CFR part 51 subpart T, with respect to the conformity of transportation plans, programs, and projects which are developed, funded, or approved by the United States Department of Transportation (DOT), and by the metropolitan planning organizations or other recipients of funds under title 23 or the Federal Transit Act (49 U.S.C. 1601 et seq.). This rule sets forth policy, criteria, and procedures for demonstrating and assuring conformity of such activities to the applicable implementation plan, developed and applicable, pursuant to section 100 and Part D of the CAA. Transportation plans, programs, and projects must conform to an implementation plans purpose of eliminating or reducing the severity and number of violations of the NAAQS. Transportation plans, programs and projects must not cause or contribute to any new violation of any standards nor increase the frequency or severity of any existing violations of any standard or any required interim emission reductions or other milestones. This rule applies to the Kansas City ozone maintenance area.

A general conformity regulation (10 CSR 10-6.300 Conformity of General Federal Actions to State Implementation Plans) was filed on January 30, 1996, and became effective on September 30, 1996. This rule implements section 176(c) of the CAA, as amended (42 U.S.C. 7401 et seq.) and regulations under 40 CFR part 51 subpart W, with respect to the

conformity of general federal actions to the applicable implementation plan. Under those authorities, no department, agency or instrumentality of the federal government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan. This rule applies to all areas in the state of Missouri, which are designated as non-attainment or maintenance for any criteria pollutant or standard for which there is a NAAQS.

A conformity analysis (See List of References #7) is a demonstration that the regional emissions from proposed transportation projects will not exceed the motor vehicle emissions budgets. If the conformity requirements cannot be met, then only certain types of projects may proceed until the requirements can be met. The emission inventory provides a basis for establishing new motor vehicle emission budgets, which are used to demonstrate consistency between the region's air quality goals and emissions expected from implementation of transportation plans and programs.

The Metropolitan and Statewide Planning Regulations that govern MARC's LRTP and TIP require the projects in both documents, for the time periods they cover, to be financially constrained and sufficient in project detail to permit an air quality conformity determination. Projects for both the LRTP and the TIP are analyzed as a group to determine that their projected air quality impacts are lower than a budgeted amount to ensure that the region's air quality is not adversely affected by mobile source pollutants. In the case of the LRTP, the projects are required to be specific within intervals not to exceed ten years. An important limit found in the TIP requires reexamining financial constraint and a new conformity determination if one of the projects listed after the first three years be advanced to one of the first three years. This requires a TIP amendment, which would require reexamining financial constraint and a new conformity determination. The conformity determination for the TIP applies only to the first three years of projects, consistent with the period recognized for federal programming purposes.

The 2020 LRTP was found to conform to the plan prior to its adoption in February of 1999. Conformity of LRTP and TIP must be approved by U.S. Department of Transportation (DOT) in consultation with EPA. DOT approved air quality conformity in February 1999 LRTP update on July 28, 1999, following the governors' of Kansas and Missouri opting in to the federal RFG program for the Kansas City region. Once a subsequent court decision disallowed maintenance areas from opting into the federal RFG program, the air quality conformity of the LRTP was reanalyzed and found to conform by incorporating the 2001 National Low Emission Vehicle (NLEV) Standard. DOT re-approved conformity of the 2020 LRTP on February 14, 2000. The existing FY 2000-2004 TIP as amended was most recently approved by DOT on February 6, 2001.

The following table lists the estimated VOC and NO<sub>x</sub> emissions for the years 2010 and 2020 for the regional network including those regionally significant capacity projects contained in the FY 2002-2006 TIP and compares them with their respective motor vehicle emissions budgets from the plans. Regionally significant projects in the LRTP beyond the time frame of the TIP are also included in the analysis. All figures are in kilograms per summer day.

Year	Seasonally adjusted VMT/sd	Factored net mobile VOC emissions Kg/sd	VOC Budget Kg/sd	Margin	Factored mobile NOx emissions Kg/sd	NOx Budget Kg/sd	Margin
2010	57,003,000	57,734	82,885	25,151	85,896	120,121	34,225
2020	65,758,000	69,994	82,885	12,891	88,815	120,121	31,306

The conformity analysis clearly indicates that regional motor vehicle emissions of VOC and NOx remain below the budgeted level in the proposed regional plan while accounting for the network anticipated to be operational as a result of roadway capacity projects listed in the 2002 TIP. As such the analysis indicates that the 2002 TIP and the 2020 LRTP are in conformity with the plan.

## 3.0 REFERENCES

### 3.1 LIST OF REFERENCES

1. Kansas City Ozone Maintenance State Implementation Plan Revision: Emissions Inventories and Motor Vehicle Emissions Budgets for the Kansas City Metropolitan Area, Kansas Department of Health and Environment, Bureau of Air and Radiation, May, 1995.
2. Handbook for Criteria Pollutant Inventory Development: A Beginner's Guide for Point and Area Sources, U.S. Environmental Protection Agency, EPA-454/R-99-037, September 1999.
3. U.S. Department of Commerce, Bureau of the Census, <http://www.census.gov>.
4. 1997 Long-Range Population, Households And Employment Forecast, Mid-America Regional Council, updated December 1, 1998, [http://www.metrodateline.org/mt\\_pop.htm](http://www.metrodateline.org/mt_pop.htm).
5. I-Steps Point Source Data Base, Kansas Department of Health and Environment; Bureau of Air and Radiation, Topeka, KS, 1999.
6. Economic Growth Analysis System (EGAS) v4.0, U.S. Environmental Protection Agency, <http://www.epa.gov/ttn/chief/emch/projection/index.html>.
7. Large portions of this section on Air Quality Conformity Analysis/Determination and Mobile Budgets closely follow the definition, background, and use the data presented or have been directly copied from the MARC web site <http://www.marc.org/transportation/tip/TIP02-06.html> and <http://www.marc.org/transportation/tip/AQConformity.pdf>
8. National Air Quality and Emissions Trends Report, 1999 Chapter 2, Criteria Pollutants – National Trends

### 3.2 LIST OF TABLES

- Table 1: Ozone Exceedances by Year in the KC Maintenance Area  
Table 2: Ozone Exceedances by Monitor in the KCMA  
Table 3: Ozone Design Values for the KCMA  
Table 4: 1999 and 2012 VOC, NO<sub>x</sub> & CO Emissions for MO  
Table 5: 1999 and 2012 VOC, NO<sub>x</sub> & CO Emissions for KS  
Table 6: 1999 and 2012 VOC, NO<sub>x</sub> & CO Emissions for KCMA

### 3.3 LIST OF ACRONYMS

(APCP)	Air Pollution Control Program
(AFB)	Air Force Base
(BEA)	U.S. Department of Commerce Bureau of Economic Analysis
(BEIS)	Biogenic Emissions Inventory System
(BIOME)	Biogenic Model for Emissions
(PCBEIS-2.2)	Personal Computer version Biogenic Emissions Inventory System
(CAA)	Clean Air Act
(CAAA)	Clean Air Act Amendments of 1990
(CFR)	Code of Federal Regulations
(CO)	Carbon Monoxide
(DOT)	Department of Transportation
(EIQ)	Emission Inventory Questionnaire
(EIIP)	Emissions Inventory Improvement Program
(EPA)	U.S. Environmental Protection Agency
(I/M)	Inspection and Maintenance
(KCI)	Kansas City International Airports
(KCMA)	Kansas City Metropolitan Area
(KDHE)	Kansas Department of Health and Environment
(LAER)	Lowest Achievable Emission Rate
(LRTP)	Long Range Transportation Plan
(MACC)	Missouri Air Conservation Commission
(MACT)	Maximum Achievable Control Technology
(MARC)	Mid-America Regional Council
(NAAQS)	National Ambient Air Quality Standards
(NLEV)	National Low-Emission Vehicle
(NOx)	Nitrogen Oxides
(ORVR)	Onboard Refueling Vapor Recovery
(OSD)	Ozone Season Day
(PPM)	Parts Per Million
(RACT)	Reasonably Available Control Technology

### **List of Acronyms (cont.)**

(RFG)	Reformulated Gasoline
(RVP)	Reid Vapor Pressure
(SIP)	State Implementation Plan
(TCM)	Transportation Control Measures
(VOC)	Volatile Organic Compound
(VMT)	Vehicle Miles Traveled

## **3.4 LIST OF APPENDICES**

Appendix A	Map of Kansas City Ozone Maintenance Area.
Appendix B	Area, Point, and Off-road mobile emissions for Kansas Plan counties.
Appendix C	Area, Point, and Off-road mobile emissions for Missouri Plan counties.
Appendix D	On-road emissions and MOBILE6 parameters.
Appendix E	Letters from Missouri and Kansas State Governors Responding to RFG program.
Appendix F	June 28, 2002 Public Hearing Notice and Certification of Publication of the Notice.
Appendix G	June 28, 2002 Public Hearing Comments and Responses.
Appendix H	MACC Adoption Certification.
Appendix I	KS and MO Emissions from New Population and Employment Forecasts.
Appendix J	October 24, 2002 Public Hearing Notice and Certification of Publication of the Notice.
Appendix K	Public Hearing Comments and Responses on Revised Budget.
Appendix L	MACC Adoption Certificate for Revised Budgets and Inventory.
Appendix M	Final EPA Approval of 2002 Kansas City Maintenance Plan.

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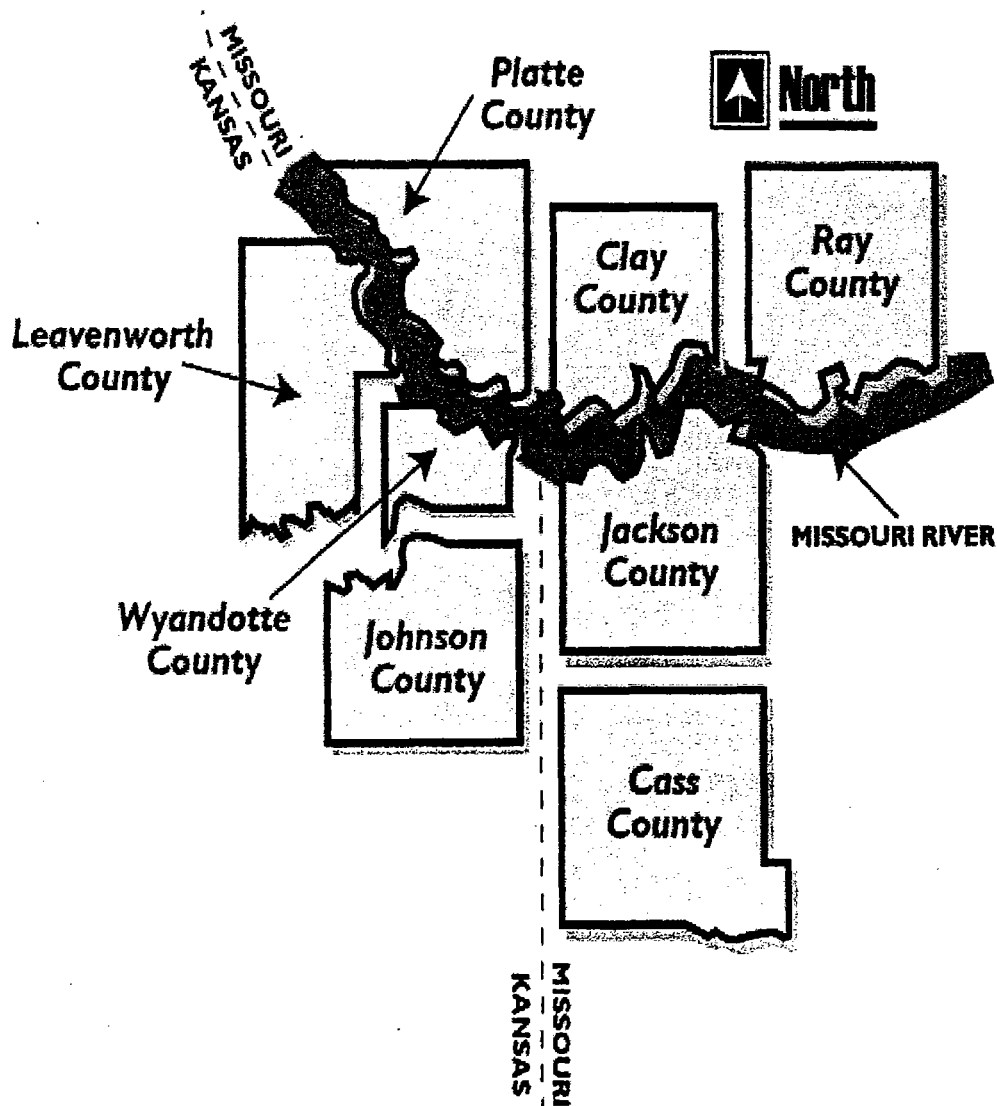


### 3.4.1

### APPENDIX A

Map of Kansas City Ozone Maintenance Area.

The maintenance area includes Jackson, Clay and Platte Counties in Missouri and the Kansas Counties of Johnson and Wyandotte. Ray and Cass Counties are not part of the non-attainment area, but are included for regional perspective. This map was developed by MARC is displayed with the permission of MARC.



1 the certified mail receipts from the four local  
2 air pollution control agencies, as well as  
3 copies of receipts from the U.S. Environmental  
4 Protection Agency and the states of Illinois and  
5 Kansas.

6 Madam Chairman, this concludes my  
7 testimony.

8 CHAIRPERSON BEARD: Thank you.

9 Tim Hines, I believe, is next.

10 TIM HINES,  
11 a witness, being first duly sworn, testified  
12 under oath as follows:

13 MR. HINES: Good morning, Madam Chair  
14 and members of the Commission. My name is Tim  
15 Hines. I'm employed with the Air Pollution  
16 Control Program as an environmental engineer.

17 I work at 205 Jefferson Street in  
18 Jefferson City, Missouri. I am here to present  
19 testimony for the 2002 Kansas City maintenance  
20 plan.

21 The plan begins on page 120 of the  
22 briefing document. I will now begin the  
23 testimony concerning the 2002 maintenance plan.

24 Can everyone hear me?

25 Today's presentation will be in three

### AAA COURT REPORTING COMPANY

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## AFFIDAVIT OF PUBLICATION

THE KANSAS CITY STAR COMPANY, publishers of  
THE KANSAS CITY STAR, a newspaper published in  
the City of Kansas City, County of Jackson, State of  
Missouri, confirms that the notice and/or advertisement of

MO DEPT OF NATURAL RESOURCES  
AIR POLLUTION CONTROL PROGRAM  
PO BOX 176  
JEFFERSON CITY MO 65102  
2239898

518430

true copy of which is hereto attached,  
as duly published in the above said newspaper

FOR THE PERIOD OF: 1 Day (s)

COMMENCING: May 26, 2002

UNTIL: May 26, 2002

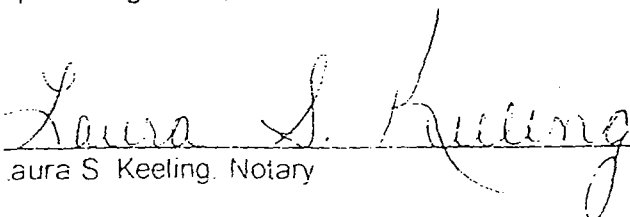
LAST EDITION (S): 5/26/

LAST PAPER (S): 251

VOLUME: #122

Subscribed and sworn to before me,  
this Tuesday, 28 May, 2002

I certify that I was duly qualified  
as a Notary Public for the State of  
Missouri, commissioned in Jackson  
County, Missouri. My commission  
expires August 18, 2002.

  
Laura S. Keeling, Notary

## MISSOURI AIR CONSERVATION COMMISSION WILL HOLD PUBLIC HEARING

JEFFERSON CITY, MO - The Missouri Air Conservation Commission will hold a public hearing on Kansas City Ozone Maintenance State Implementation Plan and other issues on Friday, June 28, 2002. The Public Hearing will begin at 9 a.m. at the Holiday Inn KCI, Heartland Ballroom II & III, 11832 Plaza Circle, Kansas City, Missouri. The commission will hear testimony related to the following rule actions.

\* Kansas City Ozone Maintenance State Implementation Plan

The Missouri Department of Natural Resources' Air Pollution Control Program is proposing a subsequent Kansas City Ozone Maintenance Plan to maintain the ozone standard. The U.S. EPA approved the current plan on June 23, 1992 and approved a partial revision on April 24, 1998. The Clean Air Act requires that the State submit periodic revisions after re-designation as an attainment area. The plan includes an updated emissions inventory, emission growth projections, contingency measures, and provides for continued operation of the monitoring network. The plan shows that the 1999 emissions when projected to 2012 will not increase. The plan relies on an attainment level of emissions of volatile organic compounds and nitrogen oxides to maintain the ozone standard through a combination of control measures. These measures include both stationary and mobile source controls. This plan demonstrates how the area will maintain the ozone standard for the next ten years.

\* 10 CSR 10-3.060 (amendment) Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

This proposed amendment will eliminate the exemption for existing boilers with a capacity rating of 10 million btu/hr or less.

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The above documents will be available for review at the following locations: Missouri Department of Natural Resources, Air Pollution Control Program, 205 Jefferson St., Jefferson City, (573) 751-4817; Jefferson City Regional Office, 210 Hoover Road, Jefferson City, (573) 751-2729; Kansas City Regional Office, 500 NE Colbern Road, Lee's Summit, (816) 622-7000; Northeast Regional Office, 1709 Prospect Drive, Macon, (660) 385-2129; Southeast Regional Office, 948 Lester Street, Poplar Bluff, (573) 840-9750; St. Louis Regional Office, 9200 Watson Road, St. Louis, (314) 301-7600; Southwest Regional Office, 2040 W. Woodland, Springfield, (417) 891-4300.

Persons with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the division directly at (573) 751-7840, the department's toll free number at (800) 334-6946, or by writing two weeks in advance of the meeting to: Missouri Department of Natural Resources, Air Conservation Commission Secretary, P.O. Box 176, Jefferson City, MO 65102. Hearing impaired persons may contact the program through Relay Missouri, (800) 735-2966.

The commission holds public hearings under the provisions of chapter 643, RSMo. Citizens wishing to speak at the public hearing should notify the secretary to the Missouri Air Conservation Commission, Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or telephone (573) 751-7840. The department requests persons intending to give verbal presentations also provide a written copy of their testimony to the commission secretary at the time of the public hearing. The department also will accept written comments for the record until 5 p.m. on July 5, 2002; please send two copies of written comments to Chief, Planning Section, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176.

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### **3.4.2**

### **APPENDIX B**

Area, Point and Off-road mobile emissions for Kansas Plan counties.

# ST. LOUIS POST-DISPATCH

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AIR POLLUTION  
CONTROL PGM

A01CND3201871 0524  
MDNR - AIR POLLUTION CONTROL  
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PO BOX 176  
JEFFERSON CTY MO 65102

THE ATTACHED ADVERTISEMENT WAS PUBLISHED IN THE ST. LOUIS  
POST-DISPATCH IN CLASSIFICATION 9000, 1 TIME, STARTING ON  
MAY 24, 2002 AND ENDING ON MAY 24, 2002.

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CUSTOMER SERVICE MANAGER

SWORN TO AND SUBSCRIBED BEFORE ME,  
THIS 27 DAY OF MAY, 2002.

NOTARY PUBLIC, CITY OF ST. LOUIS

AFFIDAVIT CHARGE \$ 5.00 EACH

PATRICIA CARLISLE  
Notary Public — Notary Seal  
STATE OF MISSOURI  
St. Louis County  
My Commission Expires: June 26, 2005

D > ST. LOUIS, MO 63101-1099 > PHONE 314-340-8000

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# SPRINGFIELD NEWS-LEADER

651 Boonville • MPO Box 798  
Springfield, Missouri 65801  
Telephone (417) 836-1100

## DNR-Air Pollution Control

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June 4, 2002

## PROOF OF PUBLICATION

STATE OF MISSOURI  
County of Greene

I, Marsha Burnett of Springfield, Missouri, of lawful age, do upon my oath state that I am the Legal Clerk of the News-Leader, and that I am duly authorized to and do make this affidavit for and on behalf of the News-Leader, a newspaper published daily in the City of Springfield, Greene County, Missouri; that the public advertisement, notice or order of publication, a true copy of which is hereto attached, was published in said newspaper 1 times upon the following dates:

First publication on Saturday, May 25, 2002,  
Second publication on \_\_\_\_\_,  
Third publication on \_\_\_\_\_,  
Fourth publication on \_\_\_\_\_,  
Fifth publication on \_\_\_\_\_,  
Last publication on \_\_\_\_\_.

I do further state under oath that said newspaper has been admitted to the Post Office as second class matter; that it is a newspaper of general circulation in the City of Springfield, Missouri; that it has been published regularly and consecutively for a period of more than three years; that it has a list of bona fide subscribers voluntarily engaged as such; who have paid or agreed to pay a stated price for a subscription for a definite period of time, and that said newspaper has complied with the provisions of Section 14968 Revised Statutes of Missouri, 1939, relating to "Public Advertisements."

Jefferson City, MO 65102. Hearing impaired persons may contact the program through Relay Missouri, (800) 735-2966.

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RSMo. For more information or a complete meeting agenda, including rules being presented for adoption, contact the Missouri Department of Natural Resources' Air Pollution Control Program at (573) 751-4817.

*Marsha Burnett*

Subscribed and sworn to before me this

My commission expires

*Renée Swaters*

5th Day of June, 2002

Notary Public in and for Greene County, Missouri

RENEE SWATERS  
NOTARY PUBLIC STATE OF MISSOURI  
POLK COUNTY  
MY COMMISSION EXP. JUNE 23, 2002

 GANNETT



**999 KANSAS CITY OZONE MAINTENANCE AREA INVENTORY**  
**AREA SOURCE EMISSIONS FOR JOHNSON AND WYANDOTTE COUNTY OF KANSAS**

3/5/2002

Category	1999 Annual Emissions			1999 Daily Emissions			2012 Daily Emissions		
	VOC Tons	Nox Tons	CO Tons	VOC lbs/OSD	Nox lbs/OSD	CO lbs/OSD	VOC lbs/OSD	Nox lbs/OSD	CO lbs/OSD
<b>JOHNSON COUNTY</b>									
Architectural									
Surface Coating	729.31			5,289.47			6,541.46		
Asphalt Paving	426.47			3,280.54			4,057.02		
Automobile Refinis	156.23			1,201.78			1,464.89		
Bakeries	31.13			170.58			210.48		
Commercial and C	1,333.80			7,308.49			9,038.37		
Dry Cleaning	13.43			103.30			127.75		
Fuel Oil Combusti	12.30	1,230.08	307.52	19.50	1,950.25	487.56	24.12	2,411.86	602.96
Gasoline									
Marketing	1,670.33			9,893.33			6,998.41		
Graphic Arts	969.45			7,457.28			8,377.77		
Incineration	20.89	31.65	99.62	114.44	173.40	545.84	141.53	214.44	675.04
Landfills	2,405.26		27.56	13,179.48		151.00	18,712.21		214.36
NG Combustion	29.19	729.87	102.18	46.29	1,157.18	162.00	57.24	1,431.07	200.35
Natural Gas									
Combustion	115.88	2,521.78	1,498.50	497.75	11,849.13	7,171.95	550.74	13,003.52	7,879.38
Open Burning	685.50	137.10	1,942.25	3,756.16	751.23	10,642.44	4,645.22	929.04	13,161.45
Pesticides	410.50			3,473.44			4,295.59		
Small Industrial									
Surface Coating	981.77			7,552.10			8,180.11		
Solvent Cleaning	569.20			3,648.70			4,486.70		
Structural Fires	6.40	0.82	30.37	32.28	4.11	153.12	39.92	3.95	189.36
Traffic Markings	139.77			1,419.22			1,755.14		
Wildfires	37.38	6.23	218.03	410.74	68.46	2,395.98	410.74	68.46	2,395.98
Wood Combustion	927.84	59.31	4,889.17	1,471.06	94.04	7,751.59	1,819.25	116.30	9,586.35
<b>COUNTY TOTAL</b>	<b>11,672.02</b>	<b>4,716.83</b>	<b>9,115.20</b>	<b>70,325.94</b>	<b>16,047.79</b>	<b>29,461.49</b>	<b>81,934.66</b>	<b>18,178.65</b>	<b>34,905.23</b>
(tons/day)				35.16	8.02	14.73	40.97	9.09	17.45

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May 22, 2002

(D)

recently rates Aquila debt one step above junk status.

In response, Aquila said its "primary focus" for the rest of the year is improving its credit rating.

Moody's said it decided on the review after Aquila's first-quarter earnings slid 40 percent from the same quarter last year, and cash from operations "fell well short of investment needs," Moody's said.

Aquila, formerly UtiliCorp United, is one of several energy traders to run into trouble in the months since Enron, the industry's pioneer, went bankrupt amid a scandal over alleged improper accounting.

"We were fully aware that Moody's action was a potential outcome," Aquila's president and chief executive officer Robert K. Green said in a written statement. "We expect to make significant progress in short order."

The new round of 150 job cuts

by \$100 million and million in non-core: prove its rating. The \$16 million in core head such as core: million in executive million from jobs.

On Monday, Aquila would also drop off control of Quanta Services. The Houston-based services for the power telecommunication had opposed attempts its largest shareholder control. Aquila owns percent in Quanta.

Last week, Standard Corp. said Aquila could cash crunch if its credit graded.

Also Tuesday, announced that it is dropping Andersen LLP as its firm, and hiring KPMG.

Aquila stock closed up 11 cents, at \$14.8



**MANOR CARING AWARD** - Kirksville Manor Care Center's Manor Caring Award for May 2002 was given to Justin Smith. Justin attends North East Bible College, and has been employed at KMCC since February 2002. He enjoys spending time working with music and singing. Justin will spend ten weeks of his summer interning as a youth pastor.

Find Out The Latest News,  
Sports, Weather &  
Entertainment. Read The  
KIRKSVILLE DAILY EXPRESS!

# **WYANDOTTE COUNTY**

Architectural									
Surface Coating	250.80			1,818.99			1,747.97		
Asphalt Paving	233.19			1,793.77			1,723.74		
Automobile Refinis	41.66			320.47			390.64		
Bakeries	7.37			40.38			49.83		
Commercial and C	458.68			2,513.31			2,415.18		
Dry Cleaning	20.80			160.00			153.75		
Fuel Oil Combusti	4.23	423.01	105.75	6.71	670.67	167.67	6.44	644.48	161.12
Gasoline									
Marketing	637.84			3,777.93			2,076.60		
Graphic Arts	145.81			1,121.60			1,260.04		
Incineration	9.75	14.78	47.24	53.44	80.97	258.85	51.36	77.81	248.75
Landfills	500.12		5.73	2,740.39		31.40	2,448.65		28.06
LPG Combustion	10.04	250.99	35.14	15.92	397.94	55.71	15.30	382.40	53.54
Natural Gas									
Combustion	34.02	718.72	426.22	134.28	3,135.75	1,902.94	141.18	3,322.44	2,014.11
Open Burning	251.51	50.30	712.62	1,378.15	275.63	3,904.77	1,324.35	264.87	3,752.32
Pesticides	138.31			1,170.34			1,124.65		
Small Industrial									
Surface Coating	327.63			2,520.23			2,691.85		
Solvent Cleaning	400.72			2,568.73			3,267.05		
Structural Fires	2.20	0.28	10.45	11.10	1.41	52.66	10.67	1.36	50.60
Traffic Markings	48.07			488.05			469.00		
Wildfires	9.97	1.66	58.15	109.55	18.26	639.06	109.55	18.26	639.06
Wood Combustion	319.07	20.40	1,681.33	505.88	32.34	2,665.68	486.13	31.08	2,561.61
<b>COUNTY TOTAL</b>	<b>3,851.80</b>	<b>1,480.14</b>	<b>3,082.63</b>	<b>23,249.23</b>	<b>4,612.98</b>	<b>9,678.73</b>	<b>21,963.93</b>	<b>4,742.71</b>	<b>9,509.16</b>
(tons/day)				11.62	2.31	4.84	10.98	2.37	4.75
<b>AREA SOURCE T</b>	<b>15,523.82</b>	<b>6,196.97</b>	<b>12,197.83</b>	<b>93,575.17</b>	<b>20,660.76</b>	<b>39,140.22</b>	<b>103,898.59</b>	<b>22,921.36</b>	<b>44,414.40</b>
(tons/day)				46.79	10.33	19.57	51.95	11.46	22.21

# AFFIDAVIT OF PUBLICATION

STATE OF MISSOURI ) ss.  
County of Boone )

I, Ryan Parks, being duly sworn according to law, state that I am one of the publishers of the Columbia Daily Tribune, a daily newspaper of general circulation in the County of Boone, State of Missouri, where located; which newspaper been admitted to the Post Office as periodical class matter in the City of Columbia, Missouri, the city of publication; which newspaper has been published regularly and consecutively for a period of three years and has a list of bona fide subscribers voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time, and that such newspaper has complied with the provision of Section 493.050, Revised Statutes of Missouri, 2000, and Section 59.310, Revised Statutes of Missouri, 2000. The affixed notice appeared in said newspaper in the following consecutive issues:

1st Insertion,	May 22	2002
2nd Insertion,		2002
3rd Insertion,		2002
4th Insertion,		2002
5th Insertion,		2002
6th Insertion,		2002
7th Insertion,		2002
8th Insertion,		2002
9th Insertion,		2002
10th Insertion,		2002
11th Insertion,		2002
12th Insertion,		2002
13th Insertion,		2002
14th Insertion,		2002
15th Insertion,		2002
16th Insertion,		2002
17th Insertion,		2002
18th Insertion,		2002
19th Insertion,		2002
20th Insertion,		2002
21st Insertion,		2002
22nd Insertion,		2002

PRINTERS FEE: \$124.00

By

Subscribed and sworn to before me this 22<sup>nd</sup> day of May, 2002

Notary Public

My Commission Expires Jan 3, 2006

GEORGE W. ROBINSON  
Notary Public - Notary Seal  
STATE OF MISSOURI  
Boone County  
My Commission Expires: Jan. 3, 2006

## MISSOURI AIR CONSERVATION COMMISSION WILL HOLD PUBLIC HEARING

JEFFERSON CITY, MO-The Missouri Air Conservation Commission will hold a public hearing on Kansas City Ozone Maintenance State Implementation Plan and other issues on Friday, June 28, 2002. The Public Hearing will begin at 9 a.m. at the Holiday Inn KCI, Heartland Ballroom II & III, 11832 Plaza Circle, Kansas City, Missouri. The commission will hear testimony related to the following rule actions.

- \* Kansas City Ozone Maintenance State Implementation Plan. The Missouri Department of Natural Resources' Air Pollution Control Program is proposing a subsequent Kansas City Ozone Maintenance Plan to maintain the ozone standard. The U.S. EPA approved the current plan on June 23, 1992 and approved partial revision on April 24, 1998. The Clean Air Act requires that the State submit periodic revisions after re-designation as an attainment area. The plan includes an updated emissions inventory, emission growth projections, contingency measures, and provides for continued operation of the monitoring network. The plan shows that the 1999 emissions

sizes and thus the filling mechanisms and emissions venting controls had been switched. It will also add a definition for Stage I Vapor Recovery.

The above documents will be available for review at the following locations: Missouri Department of Natural Resources, Air Pollution Control Program, 205 Jefferson St., Jefferson City, (573)751-4817; Jefferson City Regional Office, 210 Hoover Road, Jefferson City, (573)751-2729; Kansas City Regional Office, 500 NE Colbern Road, Lee's Summit, (816)622-7000; Northeast Regional Office, 1709 Prospect Drive, Macon, (660)385-2129; Southeast Regional Office, 948 Lester Street, Poplar Bluff, (573)840-9750; St. Louis Regional Office, 9200 Watson Road, St. Louis, (314)301-7600; Southwest Regional Office, 2040 W. Woodland, Springfield, (417)891-4300.

Persons with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the division directly at (573)751-7840, the department's toll free number at (800)334-6946, or by writing two weeks in advance of the meeting to: Missouri Department of Natural Resources, Air Conservation Commission Secretary, P.O.Box 176, Jefferson City, MO 65102. Hearing impaired persons may contact the program through Relay Missouri, (800)735-2966.

The commission holds public hearings under the provisions of chapter 643, RSMo. Citizens wishing to speak at the public hearing should notify the secretary to the Missouri Air Conservation Commission, Missouri Department of Natural Resources, Air Pollution Control Program P.O. Box 176, Jefferson City.

## 1999 KANSAS CITY MAINTENANCE AREA INVENTORY

12/5/2001

## JOHNSON AND WYANDOTTE COUNTY POINT SOURCE EMISSIONS SUMMARY BY 2-DIGIT SIC

SIC2	DESC1	1999 Annual (tons/yr)			1999 Daily (lbs/OSD)			2012 Daily (lbs/OSD)		
		VOC	NOx	CO	VOC	NOx	CO	VOC	NOx	CO
JOHNSON COUNTY										
27	Printing, Publishing And Allied Industries	296.0	0.6	0.1	2,441.6	5.3	1.1	2,744.6	6.0	1.2
28	Chemicals And Allied Products	54.8	0.2	0.2	421.3	1.7	1.4	480.0	1.9	1.6
29	Petroleum Refining And Related Industries	6.5	24.3	14.7	50.3	180.5	119.5	58.3	206.9	137.4
30	Rubber And Miscellaneous Plastics Products	98.4	1.8	0.4	757.1	14.0	3.2	864.5	17.8	4.1
32	Stone, Clay, Glass And Concrete Products	0.0	1,344.3	133.5	0.2	6,795.3	675.1	0.3	7,181.4	713.6
34	Fabricated Metal Products, Except Machinery & Tran	15.1	0.1	0.0	116.2	1.0	0.2	132.4	1.1	0.2
35	Industrial And Commercial Machinery & Computer Equ	8.9	0.1	1.1	68.1	0.7	8.3	79.1	0.8	10.6
39	Miscellaneous Manufacturing Industries	68.8			529.4			603.2		
48	Communications	0.0	0.3	0.1	0.0	0.2	0.1	0.0	0.2	0.1
49	Electric, Gas And Sanitary Services	28.9	163.1	62.7	155.5	1,025.3	404.1	180.6	1,252.7	483.9
51	Wholesale Trade-Nondurable Goods	52.9			290.8			337.5		
59	Miscellaneous Retail	0.0	0.8	0.2	0.2	4.5	0.9	0.3	5.2	1.0
76	Miscellaneous Repair Services	4.1			31.5			35.8		
COUNTY TOTALS		634.6	1,535.7	213.0	4,862.3	8,028.5	1,213.8	5,516.6	8,674.1	1,353.8
tons					2.4	4.0	0.6	2.8	4.3	0.7

# AFFIDAVIT OF PUBLICATION

STATE OF MISSOURI)  
COUNTY OF BUTLER) ss.

I, Don Schrieber, being duly sworn according to law, state that I am PUBLISHER of the DAILY AMERICAN REPUBLIC, a daily newspaper of general circulation in the counties of Butler, Ripley, Carter, Wayne, Stoddard, New Madrid and Pemiscot; which newspaper has been admitted to the Post Office as second class matter in City of Poplar Bluff, Missouri, the city of publication; which newspaper has been published regularly and consecutively for a period of three years and has a list of bona fide subscribers voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time and that such newspaper has complied with the provisions of Section 493.050, Revised Statutes of Missouri 1969. The affixed notice appeared in said newspaper in the following consecutive issues:

1st Insertion	Vol. 134	No. 113	23 day of May 2002
2nd Insertion	Vol. ....	No. ....	day of .... 20 .....
3rd Insertion	Vol. ....	No. ....	day of .... 20 .....
4th Insertion	Vol. ....	No. ....	day of .... 20 .....
5th Insertion	Vol. ....	No. ....	day of .... 20 .....
6th Insertion	Vol. ....	No. ....	day of .... 20 .....
7th Insertion	Vol. ....	No. ....	day of .... 20 .....
8th Insertion	Vol. ....	No. ....	day of .... 20 .....
9th Insertion	Vol. ....	No. ....	day of .... 20 .....
10th Insertion	Vol. ....	No. ....	day of .... 20 .....

PUBLISHER

Subscribed and sworn to before me this 23 day of May 2002.

NOTARY PUBLIC

My commission expires 3/26/04

Publication Fee \$ 189.04

## MISSOURI AIR CONSERVATION COMMISSION WILL HOLD PUBLIC HEARING

JEFFERSON, CITY, MO -- The Missouri Air Conservation Commission will hold a public hearing on Kansas City Ozone Maintenance State Implementation Plan and other issues on Friday, June 28, 2002. The Public Hearing will begin at 9 a.m. at the Holiday Inn KCI, Heartland Ballroom II & III, 11832 Plaza Circle, Kansas City, Missouri. The commission will hear testimony related to the following rule actions.

• Kansas City Ozone Maintenance State Implementation Plan

The Missouri Department of Natural Resources' Air Pollution Control Program is proposing a subsequent Kansas City Ozone Maintenance Plan to maintain the ozone standard. The U.S. EPA approved the current plan June 23, 1992 and approved a partial revision on April 24, 1998. The Clean Air Act requires that the State submit periodic revisions and re-designation as an attainment area. The plan includes an updated emissions inventory, emission reductions projections, contingency measures, and schedules for continued attainment of the monitoring network. The plan states that the 1999 emissions when projected to 2010 will not increase. The plan relies on an attainment level of emissions of volatile organic compounds and nitrogen oxides to maintain the ozone standard through a combination of control measures. These measures include both stationary

trols had been switched. It will also add a definition for Stage I Vapor Recovery.

The above documents will be available for review at the following locations: Missouri Department of Natural Resources, Air Pollution Control Program, 205 Jefferson St., Jefferson City, (573) 751-4817; Jefferson City Regional Office, 210 Hoover Road, Jefferson City, (573) 751-2729; Kansas City Regional Office, 500 NE Colbern Road, Lee's Summit, (816) 622-7000; Northeast Regional Office, 1709 Prospect Drive, Macon, (660) 385-2129; Southeast Regional Office, 948 Lester Street, Poplar Bluff, (573) 840-9750; St. Louis Regional Office, 9200 Watson Road, St. Louis, (314) 301-7600; Southwest Regional Office, 2040 W. Woodland, Springfield, (417) 891-4300.

Persons with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the division directly at (573) 751-7840, the department's toll free number at (800) 334-6946, or by writing two weeks in advance of the meeting to: Missouri Department of Natural Resources, Air Conservation Commission Secretary, P.O. Box 176, Jefferson City, MO 65102. Hearing impaired persons may contact the program through Relay Missouri, (800) 735-2966.

The commission holds public hearings under the provisions of chapter 643, RSMo. Citizens wishing to speak at the public hearing should notify the secretary to the Missouri Air Conservation Commission, Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City,

# **WYANDOTTE COUNTY**

14	Mining And Quarrying Of Nonmetallic Minerals	0.1	3.2	0.7	1.1	26.1	5.5	1.3	29.7	6.3
20	Food And Kindred Products	168.7	32.8	13.0	962.1	222.2	82.5	1,166.5	256.5	96.9
26	Paper And Allied Products	24.3		0.2	187.2		0.0	210.3		0.0
27	Printing, Publishing And Allied Industries	34.8	0.9	77.3	271.9	0.0	494.0	306.9	0.0	549.2
28	Chemicals And Allied Products	169.6	115.7	5.9	1,119.0	732.6	67.9	1,274.0	811.1	78.5
29	Petroleum Refining And Related Industries	3.7	10.7		42.9	126.2		49.7	144.8	
30	Rubber And Miscellaneous Plastics Products	0.2	3.7	0.9	1.1	23.8	6.0	1.4	27.1	6.8
32	Stone, Clay, Glass And Concrete Products	213.5	435.1	342.8	1,260.5	2,483.6	1,886.0	1,342.6	2,688.6	2,020.0
34	Fabricated Metal Products, Except Machinery & Tran	107.5	42.8	328.0	832.0	236.2	1,802.5	944.9	263.9	2,002.5
35	Industrial And Commercial Machinery & Computer Equ	50.7	0.5	0.1	440.3	3.8	0.9	501.6	4.3	1.1
36	Electronic & Other Electrical Equipment & Componen	25.4			182.2			207.6		
37	Transportation Equipment	1,476.7	49.6	10.4	11,177.7	357.0	75.3	14,168.7	410.9	87.5
49	Electric, Gas And Sanitary Services	105.9	6,808.9	465.3	694.3	51,363.6	3,308.5	859.9	64,381.7	4,138.5
51	Wholesale Trade-Nondurable Goods	462.7	17.2	42.4	2,574.5	93.2	229.7	2,987.1	108.2	266.6
80	Health Services	0.6	27.1	6.8	2.0	94.7	24.1	2.5	115.9	29.5
<b>COUNTY TOTALS</b>		<b>2,844.5</b>	<b>7,548.1</b>	<b>1,293.9</b>	<b>19,748.6</b>	<b>55,763.0</b>	<b>7,983.0</b>	<b>24,024.8</b>	<b>69,242.7</b>	<b>9,283.3</b>
	tons				<b>9.9</b>	<b>27.9</b>	<b>4.0</b>	<b>12.0</b>	<b>34.6</b>	<b>4.6</b>
<b>TOTALS</b>		<b>3,479.0</b>	<b>9,083.8</b>	<b>1,506.9</b>	<b>24,610.9</b>	<b>63,791.5</b>	<b>9,196.8</b>	<b>29,541.4</b>	<b>77,916.8</b>	<b>10,637.1</b>
	tons				<b>12.3</b>	<b>31.9</b>	<b>4.6</b>	<b>14.8</b>	<b>39.0</b>	<b>5.3</b>

### **3.4.6**

### **APPENDIX F**

**June 28, 2002 Public Hearing Notice  
and Certification of Publication of the Notice.**



# 1999 KANSAS CITY MAINTENANCE AREA INVENTORY

3/5/2001

OffRoad Mobile Source Emission Summary for the Kansas Counties of Johnson and Wyandotte

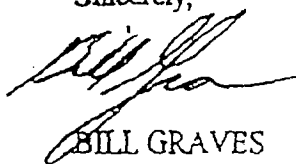
Source Category	1999 Annual Emissions (tons/yr)			1999 Daily Emissions (lbs/OSD)			2012 Daily Emissions (lbs/OSD)		
	VOC	NOx	CO	VOC	NOx	CO	VOC	NOx	CO
Johnson									
Agricultural Equipment	26.2	218.1	129.1	269.0	2,241.3	1,315.9	147.8	1,522.1	1,426.5
Airport Equipment	2.0	9.2	19.1	11.1	50.7	103.3	5.4	41.7	122.1
Commercial Equipment	582.6	505.8	14,323.9	3,728.6	3,207.7	91,466.6	2,604.3	3,723.5	133,794.4
Construction and Mining Equipment	915.0	4,906.2	6,015.7	9,045.3	48,258.4	58,723.4	3,668.0	31,168.5	53,253.8
Industrial Equipment	90.1	600.2	2,199.5	547.6	3,722.2	13,722.5	259.7	4,037.0	13,969.2
Lawn and Garden Equipment (Com)	2,025.0	468.1	27,531.8	18,163.8	4,536.1	264,397.0	9,807.3	4,586.6	331,617.6
Lawn and Garden Equipment (Res)	448.0	27.5	6,601.0	2,918.8	180.2	44,576.9	1,492.7	198.3	54,700.2
Logging Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pleasure Craft	13.1	0.8	29.5	61.2	3.6	129.7	41.2	5.0	130.8
Railroad Equipment	1.6	6.7	15.6	11.1	46.7	108.1	5.5	35.6	111.9
Recreational Equipment	93.5	10.5	1,226.9	645.4	78.2	8,791.1	641.3	66.6	9,673.1
Aircraft	23.2	3.9	727.3	126.9	21.6	3,985.1	153.5	26.1	4,821.6
Commercial Marine Vessels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Railroad Locomotives	76.4	1,961.9	193.2	418.4	10,750.2	1,058.4	519.2	8,780.7	1,517.9
COUNTY TOTALS	4,296.6		59,012.6	35,947.1	73,096.7	488,378.1	19,346.0	54,191.6	605,139.2
(tons/day)				18.0	36.5	244.2	9.7	27.1	302.6

Mr. Dennis Grams  
July 7, 2000  
Page 2

gasoline will be introduced into the Kansas City area in a much more expeditious manner providing measurable VOC reductions next year. Finally, accounting for the VOC reductions attributable to reducing the vapor pressure of cold cleaning solvents will only add to the benefits realized by implementing a VOC reduction program that builds on the federal initiative rather than implementing a program that becomes less effective as vehicles with OBVR penetrate the fleet.

If you have any questions or desire additional information, please contact Jan Sides, Director of the Bureau of Air and Radiation, at 785/296-1551.

Sincerely,



BILL GRAVES  
Governor

Source Category	1999 Annual Emissions (tons/yr)			1999 Daily Emissions (lbs/OSD)			2012 Daily Emissions (lbs/OSD)		
	VOC	NOx	CO	VOC	NOx	CO	VOC	NOx	CO
Wyandotte									
Agricultural Equipment	5.2	43.0	25.4	53.0	441.6	259.3	29.1	299.9	281.1
Airport Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Commercial Equipment	126.2	109.5	3,101.9	807.4	694.6	19,807.3	564.0	806.3	28,973.3
Construction and Mining Equipment	77.9	417.9	512.4	770.4	4,110.1	5,001.4	312.4	2,654.6	4,535.0
Industrial Equipment	48.0	328.6	1,271.9	294.8	2,056.8	7,959.7	128.2	2,256.1	8,002.8
Lawn and Garden Equipment (Com)	220.1	50.9	2,992.0	1,974.0	493.0	28,733.6	1,065.8	498.5	36,038.8
Lawn and Garden Equipment (Res)	211.5	13.0	3,117.3	1,378.4	85.1	21,051.2	704.9	93.6	25,831.8
Logging Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pleasure Craft	18.0	1.1	40.6	84.1	4.9	178.3	56.7	6.9	179.8
Railroad Equipment	0.6	2.5	5.9	4.2	17.6	40.6	2.1	13.4	42.1
Recreational Equipment	16.6	2	253.1	114.3	15.2	1,796.50	111.3	12.5	1,987.90
Aircraft	0.1	0.0	3.3	0.6	0.1	18.0	0.7	0.1	21.8
Commercial Marine Vessels	0.6	14.5	1.6	3.0	79.4	8.8	3.4	89.7	9.9
Railroad Locomotives	232.8	4,917.4	504.1	1,275.5	26,944.7	2,762.3	1,203.7	20,060.9	3,521.6
COUNTY TOTALS	957.5	5,900.4	11,829.4	6,759.7	34,943.0	87,616.9	4,182.2	26,792.6	109,426.7
(tons/day)				3.40	17.50	43.80	2.10	13.40	54.70
TOTALS	5,254.10	5,900.40	70,842.10	42,706.80	108,039.70	575,995.00	23,528.20	80,984.20	714,565.90
(tons/day)				21.4	54	288	11.8	40.5	357.3

## STATE OF KANSAS



BILL GRAVES, Governor  
State Capitol, 2nd Floor  
Topeka, Kansas 66612-1590

(785) 296-3232  
1-800-748-4408  
FAX: (785) 296-7973

OFFICE OF THE GOVERNOR

July 7, 2000

Mr. Dennis Grams  
Region VII Administrator  
U.S. Environmental Protection Agency  
901 N. 5<sup>th</sup> Street  
Kansas City, KS 66101

Dear Mr. Grams:

This letter is in response to your letter dated April 11, 2000 in which you request the state of Kansas to select a control strategy to satisfy the Kansas City maintenance plan contingency measures now that the courts have determined that reformulated gasoline is no longer an option

The State of Kansas will commit to implement a 7.0 Reid Vapor Pressure (RVP) fuel program in Johnson and Wyandotte counties with a target date of the summer of 2001. This will amount to creditable VOC reductions of 2.33 tons per day if implemented throughout the five county Kansas City maintenance area. The State of Kansas will also commit to implementation of a phased program to reduce vapor pressure of cold cleaning solvents to less than or equal to 1.0 mmHg. It is estimated this will amount to creditable VOC reductions in excess of 3 tons per day if implemented throughout the five county Kansas City maintenance area. These two control measures will provide more than a 5.33 ton per day reduction in VOCs as compared to the 4.71 tons per day from a Stage II program. Implementation schedules will be submitted under separate cover.

It is my policy to assure, to the extent possible, that state programs complement any related federal initiatives in order to provide the maximum benefit at the least cost. For this reason, it would appear to me to be counterproductive and against good public policy to propose implementation of Stage II vapor recovery in light of the introduction of on-board fuel vapor recovery (OBVR) in newer motor vehicles. Using the California estimation of the fleet penetration of OBVR motor vehicles, by the year 2003 the combination of VOC reductions attributable to 7.0 RVP gasoline plus those attributable to the motor vehicle fleet with OBVR will result in a VOC reductions equal to 70% of the reductions attributable to Stage II. By the year 2003, VOC reductions attributable to 7.0 RVP gasoline plus OBVR will already exceed the VOC reductions which would be realized by implementing Stage II. In addition, 7.0 RVP

### **3.4.3**

### **APPENDIX C**

Area, Point, and Off-road emission sources for Missouri Plan counties.

Mr. Dennis Grams  
August 22, 2000  
Page Two

To assure our air quality problems in Kansas City are resolved, I am directing the Missouri Department of Natural Resources to revise the Kansas City Ozone Maintenance Plan and require implementation of additional control strategies upon further violation of the one hour primary national ambient air quality standard for ozone. These contingencies shall include implementation of stage II vapor recovery and industrial emissions offsets for all major new sources or source modifications.

If you have any further questions or concerns, please contact Mr. Stephen Mahfood, Director, Department of Natural Resources at (573) 751-4732.

Very truly yours,



Mel Carnahan

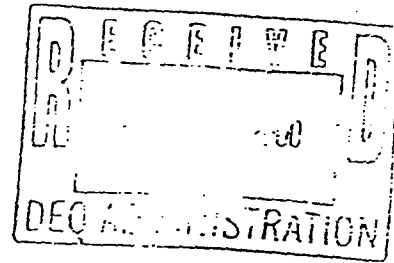
MC:kds

cc: Governor Bill Graves, Kansas  
David Warm, Mid-America Regional Council

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OFFICE OF THE GOVERNOR  
STATE OF MISSOURI  
JEFFERSON CITY  
65101



MEL CARNAHAN  
GOVERNOR

STATE CAPITOL  
ROOM 216  
(314) 751-3222

August 22, 2000

RECEIVED  
AUG 24 2000

Mr. Dennis Grams  
Region VII Administrator  
US Environmental Protection Agency  
901 North Fifth Street  
Kansas City, KS 66101

AIR POLLUTION CONTROL  
PROGRAM

Dear Mr. Grams:

This letter is in response to your letter dated April 11, 2000, which requested that the State of Missouri select a control strategy to satisfy the Kansas City Ozone Maintenance Plan contingency measures now that reformulated gasoline has been eliminated as a viable control measure.

Missouri is committed to resolving the air quality problems in Kansas City. The State of Missouri commits to implementing a 7.0 Reid Vapor Pressure (RVP) gasoline program in Clay, Platte, and Jackson counties with an implementation date of June 1, 2001. The implementation of 7.0 RVP gasoline will require the Missouri Department of Natural Resources to revise both the Kansas City Ozone Maintenance Plan and the Kansas City RVP rule. The department is currently working on the schedule for both of these revisions.

In addition, the current Kansas City Ozone Maintenance Plan requires emission reductions beyond those achieved by the implementation of 7.0 RVP gasoline. Therefore, the State of Missouri will revise the current petroleum liquid storage, loading and transfer regulation to include additional reporting and inspection requirements as well as the installation and testing of pressure vacuum relief valves. The State of Missouri also intends to implement a cold solvent cleaning regulation similar to that recently developed for the St. Louis ozone nonattainment area.



Area source emissions for Missouri SIP counties

Missouri Area Emission Sources

STATE	FIPS NAME	SIC	ASM	1990 GSD VOC	1990 GSD NOx	1990 GSD CO	2012 VOC	2012 NOx	2012 CO	SOURCE CATEGORY
29	165 PLATTE NA	17	2401001000	821.96	0	0	1085.60	0.00	0.00	Architectural Coating
29	047 CLAY NA	17	2401001000	2067.05	0	0	2446.72	0.00	0.00	Architectural Coating
29	095 JACKSON NA	17	2401001000	7631.55	0	0	7999.58	0.00	0.00	Architectural Coating
29	165 PLATTE NA	NA	2461021000	1.32	0	0	1.66	0.00	0.00	Asphalt Paving - Cutback
29	047 CLAY NA	NA	2461021000	3.32	0	0	3.93	0.00	0.00	Asphalt Paving - Cutback
29	095 JACKSON NA	NA	2461021000	12.33	0	0	12.83	0.00	0.00	Asphalt Paving - Cutback
29	165 PLATTE NA	NA	2461022000	78.85	0	0	98.83	0.00	0.00	Asphalt Paving - Emulsified
29	047 CLAY NA	NA	2461022000	197.30	0	0	233.53	0.00	0.00	Asphalt Paving - Emulsified
29	095 JACKSON NA	NA	2461022000	739.38	0	0	763.54	0.00	0.00	Asphalt Paving - Emulsified
29	165 PLATTE 7532	NA	2401005000	431.81	0	0	554.17	0.00	0.00	Auto-body Refinishing
29	047 CLAY 7532	NA	2401005000	553.90	0	0	710.87	0.00	0.00	Auto-body Refinishing
29	095 JACKSON 7532	NA	2401005000	1727.22	0	0	2216.68	0.00	0.00	Auto-body Refinishing
29	165 PLATTE 2051, 5461	NA	2302050000	0.00	0	0	0.00	0.00	0.00	Bakeries
29	047 CLAY 2051, 5461	NA	2302050000	49.36	0	0	49.52	0.00	0.00	Bakeries
29	095 JACKSON 2051, 5461	NA	2302050000	0.00	0	0	0.00	0.00	0.00	Bakeries
29	165 PLATTE NA	NA	2103002000	4.93	36.04	41.73	7.34	53.62	62.09	Commercial/Institutional Coal Combustion
29	047 CLAY NA	NA	2103002000	11.15	103.42	119.75	17.88	130.30	150.88	Commercial/Institutional Coal Combustion
29	095 JACKSON NA	NA	2103002000	63.28	462.45	535.47	71.48	522.38	604.86	Commercial/Institutional Coal Combustion
29	165 PLATTE NA	NA	2103004000	0.43	25.48	16.97	0.64	37.90	9.48	Commercial/Institutional Fuel Oil Combustion
29	047 CLAY NA	NA	2103004000	1.24	73.11	18.28	1.57	92.11	23.03	Commercial/Institutional Fuel Oil Combustion
29	095 JACKSON NA	NA	2103004000	10.56	326.91	81.73	6.28	369.27	92.32	Commercial/Institutional Fuel Oil Combustion
29	165 PLATTE NA	NA	2103007000	0.61	17.19	2.33	0.91	25.57	3.47	Commercial/Institutional LPG Combustion
29	047 CLAY NA	NA	2103007000	7.75	49.33	6.69	2.22	62.15	8.43	Commercial/Institutional LPG Combustion
29	095 JACKSON NA	NA	2103007000	7.88	220.58	29.94	8.90	249.16	33.81	Commercial/Institutional LPG Combustion
29	165 PLATTE NA	NA	2103006000	7.99	145.21	121.98	11.88	216.03	181.47	Commercial/Institutional Natural Gas Combustion
29	047 CLAY NA	NA	2103006000	22.92	416.69	350.02	28.87	525.00	441.00	Commercial/Institutional Natural Gas Combustion
29	095 JACKSON NA	NA	2103006000	102.48	1863.21	1565.10	115.75	2104.66	1767.91	Commercial/Institutional Natural Gas Combustion
29	165 PLATTE NA	NA	2460000000	1166.52	0	0	1469.72	0.00	0.00	Consumer / Commercial Solvent Use
29	047 CLAY NA	NA	2460000000	2243.64	0	0	3472.37	0.00	0.00	Consumer / Commercial Solvent Use
29	095 JACKSON NA	NA	2460000000	10904.44	0	0	11352.94	0.00	0.00	Consumer / Commercial Solvent Use
29	165 PLATTE 7216	NA	2420000000	523.85	0	0	371.38	0.00	0.00	DRY CLEANING
29	047 CLAY 7216	NA	2420000000	706.15	0	0	701.49	0.00	0.00	DRY CLEANING
29	095 JACKSON 7216	NA	2420000000	3486.15	0	0	3383.65	0.00	0.00	DRY CLEANING
29	165 PLATTE NA	NA	2810001000	0.00	0	0	0.00	0.00	0.00	Forest/Wild Fires
29	047 CLAY NA	NA	2810001000	3.38	0.85	29.62	3.01	1.00	35.06	Forest/Wild Fires
29	095 JACKSON NA	NA	2810001000	63.34	15.84	554.23	65.95	16.49	577.03	Forest/Wild Fires
29	165 PLATTE NA	NA	2501060000	27.47	0	0	58.66	0.00	0.00	Gasoline Marketing - Stage I
29	047 CLAY NA	NA	2501060000	128.08	0	0	158.08	0.00	0.00	Gasoline Marketing - Stage I
29	095 JACKSON NA	NA	2501060000	436.42	0	0	538.65	0.00	0.00	Gasoline Marketing - Stage I
29	165 PLATTE NA	NA	2501060100	805.72	0	0	127.02	0.00	0.00	Gasoline Marketing - Stage II
29	047 CLAY NA	NA	2501060100	175.43	0	0	342.96	0.00	0.00	Gasoline Marketing - Stage II
29	095 JACKSON NA	NA	2501060100	7412.58	0	0	1168.61	0.00	0.00	Gasoline Marketing - Stage II
29	165 PLATTE NA	NA	2501060200	108.43	0	0	133.89	0.00	0.00	Gasoline Marketing - Tank Breathing Loss
29	047 CLAY NA	NA	2501060200	292.76	0	0	361.33	0.00	0.00	Gasoline Marketing - Tank Breathing Loss
29	095 JACKSON NA	NA	2501060200	987.44	0	0	1231.80	0.00	0.00	Gasoline Marketing - Tank Breathing Loss
29	165 PLATTE 27	NA	2425000000	359.15	0	0	328.41	0.00	0.00	Graphic Arts
29	047 CLAY 27	NA	2425000000	50.20	0	0	45.91	0.00	0.00	Graphic Arts
29	095 JACKSON 27	NA	2425000000	628.52	0	0	574.71	0.00	0.00	Graphic Arts
29	165 PLATTE NA	NA	2102002000	7.07	390.98	28.89	7.34	218.81	9.52	Industrial Coal Combustion
29	047 CLAY NA	NA	2102002000	7.79	2856.52	64.92	7.68	2816.03	64.00	Industrial Coal Combustion
29	095 JACKSON NA	NA	2102002000	22.13	8847.51	201.08	23.55	8635.29	196.26	Industrial Coal Combustion

The Honorable Carol Browner,  
July 28, 1999  
Page 2

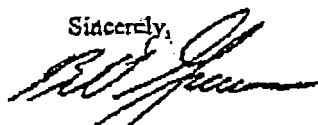
Our concerns regarding the groundwater contamination potential of increased levels of MTBE were validated by the report of your MTBE advisory panel. Eighty-eight percent of petroleum clean-up sites in Kansas are contaminated with MTBE. In addition, Kansas' experience corroborates that MTBE molecules travel unusually fast through soil and into groundwater. In Rush Center, Kansas, MTBE had migrated under monitoring wells to public wells despite the fact that the contaminant plume was well defined. Permanent, long-term treatment at the public water plant was required.

The decision to opt-in should be viewed as a short term, stop-gap measure made in response to an artificial crisis generated by transportation conformity requirements. Since the demonstration that additional refining capacity for RFG is not needed, a long-term solution should not be held captive until January 1, 2004, a date that cannot now be justified in regard to its original purpose. Therefore, I reiterate my request to continue to review alternatives to RFG in order to develop and implement the most effective manner for improving Kansas City air quality. Also, I pledge to work with you in your efforts to reduce the use of MTBE in gasoline as quickly as possible. I am confident that a performance based state blend, which could include ethanol, will continue to improve Kansas City air quality and meet your goal.

In addition, with the introduction of RFG into the Kansas City area, both state and federal regulations regarding fuel standards will be in place in Kansas City. Since EPA will be responsible for enforcement of the requirements for RFG brought into the Kansas City area, it is essential EPA does not authorize the introduction of gasoline into the Kansas City maintenance area which violates state regulations and the SIP.

I believe many questions remain on this issue. I hope to work with EPA and our partners in the Kansas City area to find an effective, long-term solution.

Sincerely,



BILL GRAVES  
Governor

BG:jca

cc: Clyde D. Gracher, Secretary, KDHE  
Dennis Grams, Regional Administrator, Region VII  
E. Dean Carlson, Secretary, KDOT  
David Geiger, Division Administrator, FHWA

Area source emissions for Missouri SIP counties

29	165	PLATTE	NA	2102004000	0.53	52.64	13.16	0.56	56.38	14.10	Industrial Fuel Oil Combustion
29	047	CLAY	NA	2102004000	3.85	384.56	96.14	3.79	379.11	94.78	Industrial Fuel Oil Combustion
29	095	JACKSON	NA	2102004000	11.91	1191.10	297.77	11.63	1162.53	290.63	Industrial Fuel Oil Combustion
29	165	PLATTE	NA	2102007000	1.20	45.57	7.68	1.28	48.81	8.22	Industrial LPG Combustion
29	047	CLAY	NA	2102007000	8.76	332.94	56.07	8.64	328.22	55.28	Industrial LPG Combustion
29	095	JACKSON	NA	2102007000	27.14	1031.22	173.68	26.49	1006.48	169.51	Industrial LPG Combustion
29	165	PLATTE	NA	2102006000	5.48	139.41	83.65	5.87	149.33	89.60	Industrial Natural Gas Combustion
29	047	CLAY	NA	2102006000	40.01	1018.53	611.12	39.45	328.22	55.28	Industrial Natural Gas Combustion
29	095	JACKSON	NA	2102006000	123.93	3154.70	1892.82	120.96	3079.03	1847.42	Industrial Natural Gas Combustion
29	165	PLATTE	25, 243-245, 2499, 32, 341, 3479, 35, 37	2401990000	1298.08	0	0	1390.49	0.00	0.00	Industrial Surface Coating
29	047	CLAY	25, 243-245, 2499, 32, 341, 3479, 35, 37	2401990000	4232.09	0	0	4172.12	0.00	0.00	Industrial Surface Coating
29	095	JACKSON	25, 243-245, 2499, 32, 341, 3479, 35, 37	2401990000	1351.32	0	0	11079.04	0.00	0.00	Industrial Surface Coating
29	165	PLATTE	NA	2610020000	6.86	1.37	19.45	8.65	1.73	24.50	Institutional/Commercial Open Burning
29	047	CLAY	NA	2610020000	6.78	1.36	19.22	8.03	1.61	22.75	Institutional/Commercial Open Burning
29	095	JACKSON	NA	2610020000	7.90	1.58	22.37	8.22	1.64	23.29	Institutional/Commercial Open Burning
29	165	PLATTE	4953	2620030000	36.33	0	0	45.77	0.00	0.00	Municipal Landfills
29	047	CLAY	4953	2620030000	96.25	0	0	113.93	0.00	0.00	Municipal Landfills
29	095	JACKSON	4953	2620030000	337.87	0	0	351.77	0.00	0.00	Municipal Landfills
29	165	PLATTE	NA	2610020000	14.10	21.37	71.22	17.77	26.92	89.74	On-site Incineration
29	047	CLAY	NA	2610020000	35.46	53.73	179.11	41.98	63.60	212.01	On-site Incineration
29	095	JACKSON	NA	2610020000	131.82	199.73	665.78	137.25	207.95	693.17	On-site Incineration
29	165	PLATTE	NA	2461800000	932.81	0	0	1200.47	0.00	0.00	Pesticide Application
29	047	CLAY	NA	2461800000	1505.65	0	0	1782.21	0.00	0.00	Pesticide Application
29	095	JACKSON	NA	2461800000	5229.01	0	0	5424.07	0.00	0.00	Pesticide Application
29	165	PLATTE	NA	2104002000	0.00	0.00	0.00	0.00	0.00	0.00	Residential Coal Combustion
29	047	CLAY	NA	2104002000	0.00	0	0	0.00	0.00	0.00	Residential Coal Combustion
29	095	JACKSON	NA	2104002000	2.46	2.24	67.70	2.66	2.42	73.06	Residential Coal Combustion
29	165	PLATTE	NA	2104004000	0.03	0.86	0.24	0.04	1.13	0.31	Residential Fuel Oil Combustion
29	047	CLAY	NA	2104004000	0.05	1.39	0.39	0.07	1.72	0.48	Residential Fuel Oil Combustion
29	095	JACKSON	NA	2104004000	0.18	4.71	1.31	0.20	5.08	1.41	Residential Fuel Oil Combustion
29	165	PLATTE	NA	2104007000	0.99	27.59	3.74	1.29	36.20	4.91	Residential LPG Combustion
29	047	CLAY	NA	2104007000	11.08	32.99	2.48	1.45	40.84	5.52	Residential LPG Combustion
29	095	JACKSON	NA	2104007000	2.75	76.90	10.44	2.96	82.99	11.26	Residential LPG Combustion
29	165	PLATTE	NA	2104006000	7.02	19.94	51.04	9.21	187.36	66.96	Residential Natural Gas Combustion
29	047	CLAY	NA	2104006000	22.82	389.95	165.93	28.10	480.31	204.39	Residential Natural Gas Combustion
29	095	JACKSON	NA	2104006000	102.03	1743.81	742.05	110.11	1881.91	800.81	Residential Natural Gas Combustion
29	165	PLATTE	NA	2610030000	128.69	25.74	364.61	162.13	32.43	459.38	Residential Open Burning
29	047	CLAY	NA	2610030000	227.17	25.43	360.32	150.53	30.11	426.51	Residential Open Burning
29	095	JACKSON	NA	2610030000	148.04	29.61	419.43	154.12	30.82	436.69	Residential Open Burning
29	165	PLATTE	NA	2104008000	43.46	0.49	47.94	53.53	0.61	59.05	Residential Wood
29	047	CLAY	NA	2104008000	36.64	0.98	95.57	49.50	1.06	103.14	Residential Wood
29	095	JACKSON	NA	2104008000	457.59	0	0	470.00	0.00	0.00	Solvent Cleaning
29	165	PLATTE	25, 33-39, 417, 423, 551, 552, 554-556, 765	2415000000	3122.24	0	0	3214.13	0.00	0.00	Solvent Cleaning
29	047	CLAY	25, 33-39, 417, 423, 551, 552, 554-556, 765	2415000000	8589.86	0	0	8822.95	0.00	0.00	Solvent Cleaning
29	095	JACKSON	25, 33-39, 417, 423, 551, 552, 554-556, 765	2415000000	4.48	0.57	24.44	5.65	0.72	30.79	Structure Fires
29	165	PLATTE	NA	2810030000	11.27	1.43	61.46	13.34	1.70	72.75	Structure Fires
29	047	CLAY	NA	2810030000	11.88	5.33	228.45	13.61	5.55	237.85	Structure Fires
29	095	JACKSON	NA	2401008000	19.30	0	0	24.32	0.00	0.00	Traffic Markings
29	165	PLATTE	2851	2401008000	18.63	0	0	37.45	0.00	0.00	Traffic Markings
29	047	CLAY	2851	2401008000	180.41	0	0	187.83	0.00	0.00	Traffic Markings
29	095	JACKSON	2851	2401008000							
TOTAL (lbs./OSD)					86,285.06	25,971.49	10,637.78	82,002.52	25,910.66	10,999.78	
TOTAL (tons/OSD)					43.14	12.99	5.32	41.00	12.96	5.50	

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## STATE OF KANSAS

BILL GRAVES, Governor  
State Capitol, 2nd Floor  
Topeka, Kansas 66612-1590



(785) 296-3232  
1-800-749-4408  
FAX: (785) 296-7973

## OFFICE OF THE GOVERNOR

July 28, 1999

The Honorable Carol Browner, Administrator  
U.S. Environmental Protection Agency  
401 M Street, S.W.  
Washington, D.C. 20460

Dear Administrator Browner:

By this letter, Kansas is applying to opt-in to the federal reformulated gasoline (RFG) program in Johnson County, Kansas and Wyandotte County, Kansas. As authorized by section 211(k)(6) of the federal Clean Air Act, Kansas is making application to the Administrator to apply the prohibition set forth in section 211(k)(5) of the federal Clean Air Act in Johnson County, Kansas, and Wyandotte County, Kansas. As authorized by 40 CFR 80.70(k), I am petitioning to include Johnson County, Kansas, and Wyandotte County, Kansas as covered areas for purposes of subparts D, E and F of 40 CFR Part 80. Also, I request that EPA utilize all the time allowed by law before RFG is required to be introduced in Johnson County, Kansas and Wyandotte County, Kansas.

I am exercising my prerogative as Governor to opt-in to the federal RFG program so the long-range transportation plan for Kansas City will demonstrate conformity with the state implementation plan mobile source volatile organic compound (VOC) emissions budget. This conformity demonstration will allow transportation projects in these counties to continue under the implementation procedures crafted in response to *Environmental Defense Fund v. Browner*. It is my understanding that this will also satisfy the contingency plan VOC reduction requirements of the Kansas City maintenance plan as authorized at 64 FR 28757-28761, May 27, 1999.

I also request that you remain open to considering alternatives to RFG for the Kansas City metropolitan area prior to the January 1, 2004 "opt-out" time frame for RFG. Much has changed since this lock-in date was established by EPA in October 1997 which causes great concern about the long-term ramifications of opting into the federal RFG program. Valid public health concerns about the RFG oxygenate methyl tertiary butyl ether (MTBE) are being raised at a time when studies suggest the RFG oxygenate requirement may not provide the intended VOC emission reduction benefits. Yet Kansas is being forced to opt-in to a program which may increase the potential exposure of Kansas citizens to this possible carcinogen.

I am also concerned that Kansas City may not realize all the air quality benefits that have been suggested as a result of an RFG opt-in. Specifically, Kansas City may not receive the VOC reductions that have been touted by various stakeholders throughout the process to date. In fact, we understand the VOC reductions could be significantly less. A cursory review of the growth and increased traffic demands of the Kansas City area readily confirm that RFG may only be a stop-gap remedy to achieve theoretical transportation conformity.

MISSOURI POINT SOURCE EMISSIONS (1999-2012)  
METROPOLITAN KANSAS CITY

SIC	SIC Description	FIRIS	1999 VOC Annual Emissions (tons/yr)	1999 NOx Annual Emissions (tons/yr)	1999 CO Annual Emissions (tons/yr)	1999 VOC Daily Emissions (lbs/OSD)	1999 NOx Daily Emissions (lbs/OSD)	1999 CO Daily Emissions (lbs/OSD)	2012 Growth factor	2012 VOC Daily Emissions (lbs/OSD)	2012 NOx Daily Emissions (lbs/OSD)	2012 CO Daily Emissions (lbs/OSD)
CLAY COUNTY												
00		047	12.9			99.4			1.43542802	142.7		
20	Food product manufacturing	047	317.0	86.3	74.1	1,750.0	513.8	440.1	1.340834196	2,346.5	688.9	590.1
26	Paper product manufacturing	047	16.3	20.2	16.9	102.8	109.0	91.5	1.333395961	137.1	145.4	121.9
27	Printing & publishing	047	93.9	4.2	1.2	635.3	16.3	2.4	1.086895585	690.5	17.7	2.6
28	Chemical manufacturing	047	116.3	6.2	1.5	853.2	43.6	10.8	1.286791723	1,097.9	56.1	13.9
29	Petroleum refining	047	3.4	7.1	1.3	25.5	72.4	13.3	1	25.5	72.4	13.3
30	Rubber & plastic manufacturing	047	14.2	0.3	0.2	98.3	2.1	1.3	1.209286804	118.9	2.6	1.5
32	Stone, clay, glass, and concrete products manufacturing	047	4.9	1.7	0.4	37.7	25.9	6.2	1.704112787	64.2	44.1	10.5
34	Fabricated metal products, except machinery and transportation equipment	047	0.2			0.8			1.723076923	1.4		
36	Electronic equipment & components, except computer equipment manufacturing	047	2.2	1.0	0.2	13.1	6.1	1.0	1.293747776	16.9	7.9	1.3
37	Transportation equipment manufacturing	047	1,811.6	121.0	99.4	12,758.5	823.2	674.9	1.832050134	23,374.3	1,508.2	1,236.5
39	Miscellaneous manufacturing	047	6.4	1.2	0.3	54.5	10.3	2.3	1.999914288	108.9	20.7	4.6

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OFFICE OF THE GOVERNOR  
STATE OF MISSOURI  
JEFFERSON CITY  
65101

MEL CARNAHAN  
GOVERNOR

STATE CAPITOL  
ROOM 316  
(573) 751-3222

July 28, 1999

Ms. Carol Browner, Administrator  
U.S. Environmental Protection Agency  
401 M. Street, S.W.  
Washington, D.C. 20460

Dear Ms. Browner:

Pursuant to Section 211(k)(6) of the Clean Air Act, I request the U.S. Environmental Protection Agency extend the requirement for reformulated gasoline to the Missouri portion of the Kansas City Ozone Maintenance Area beginning June 1, 2000.

Thank you for your attention to this matter. I look forward to the successful implementation of this program as well as continued attainment of the federal clean air standards for the Kansas City area.

If you have any further questions or concerns, please contact Mr. Stephen Mahfood, Director, Department of Natural Resources (573) 751-4732. Thank you.

Very truly yours.

  
Mel Carnahan

MC/gh

c: Dennis Grams, EPA, Region VII

49	Electric, gas, & sanitary services	047	0.5	384.3	6.8	4.2	3,076.5	54.6	1.367036767	5.7	4,205.7	74.7
50	Wholesale trade - durable goods	047	11.5	3.6	0.8	54.3	19.8	4.2	1.474463973	80.1	29.2	6.2
51	Wholesale trade - nondurable goods	047	0.0	0.1		0.0	0.6		1.474463973	0.0	0.9	
72	Personal services	047	1.7			8.8			1.238509202	10.9		
75	Automotive repair, services and parking	047	34.4	0.3	0.2	245.3	1.8	1.5	1.513755098	371.3	2.7	2.3
80	Health services	047	0.0	1.8	0.4	0.2	7.6	1.9	1.334045204	0.2	10.1	2.5
CLAY COUNTY TOTALS			2,447.7	639.2	203.7	16,741.9	4,729.1	1,305.8		28,593.1	6,812.6	2,081.8
JACKSON COUNTY												
07	Agricultural services	095		0.0			0.4		1.227818675		0.5	
14	Mining and quarrying of nonmetallic minerals, except fuels	095	0.8	18.0	12.5	6.4	145.5	112.7	1.216704289	7.8	177.1	137.1
17	Construction - special trade contractors	095	0.5	0.1	0.3	7.4	1.8	4.6	1.195020335	8.8	2.1	5.6
20	Food product manufacturing	095	401.4	97.1	278.8	1,804.8	489.2	1,519.4	1.340834196	2,420.0	655.9	2,037.3
24	Lumber & wood products, except furniture, manufacturing	095	30.5	0.6	0.9	188.5	3.9	6.3	1.920867113	362.1	7.5	12.2
25	Furniture & fixture manufacturing	095	3.8			29.2			1.974052932	57.7		
26	Paper product manufacturing	095	120.2	4.4	2.7	765.1	31.1	18.6	1.333395961	1,020.1	41.5	24.8
27	Printing & publishing	095	388.8	9.0	4.0	2,770.6	61.5	29.0	1.086895585	3,011.3	66.9	31.6

**3.4.5**

**APPENDIX E**

Letters from Missouri and Kansas State Governors  
Responding to RFG program.



63

28	Chemical manufacturing	095	78.9	59.5	30.9	921.5	398.5	196.9	1.286791723	1,185.8	512.8	253.4
29	Petroleum refining	095	10.5	49.0	42.2	65.7	444.5	364.5	1	65.7	444.5	364.5
30	Rubber & plastic manufacturing	095	8.8	1.1	1.7	67.6	8.0	12.9	1.209286804	81.7	9.7	15.6
32	Stone, clay, glass, and concrete products manufacturing	095	29.4	1,193.3	316.1	168.6	6,563.0	1,738.5	1.704112787	287.3	11,184.1	2,962.5
33	Primary metal industries manufacturing	095	81.4	288.2	242.8	479.5	1,578.0	1,320.3	1.860995458	892.3	2,936.6	2,457.1
34	Fabricated metal products, except machinery and transportation equipment	095	250.3	69.7	34.5	1,574.8	477.1	229.8	1.723076923	2,713.5	822.1	396.0
35	Machines & computer equipment manufacturing	095	23.1	2.9	0.4	238.9	30.0	4.2	1.095952207	261.9	32.9	4.6
36	Electronic equipment & components, except computer equipment manufacturing	095	19.1	49.3	21.4	130.5	300.0	131.6	1.293747776	168.8	388.2	170.2
37	Transportation equipment manufacturing	095	40.8	0.9	0.1	297.5	4.9	0.4	1.832050134	545.0	9.0	0.8
38	Technical instrument manufacturing	095	10.6	0.9	0.1	72.8	5.8	0.4	1.486406236	108.2	8.6	0.7
42	Motor freight transportation & warehousing	095	0.2			1.3			1.358181141	1.7		
43	United States Postal Service	095	0.0	0.3	0.3	0.1	0.8	0.6	1.139498887	0.1	1.0	0.7
48	Communications	095		7.2	3.1		275.4	118.5	1.257965057		346.4	149.0

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49	Electric, gas, & sanitary services	095	286.2	21,986.4	973.2	1,919.5	158,792.6	7,665.3	1.367036767	2,624.1	217,075.3	10,478.7
50	Wholesale trade - durable goods	095	6.8	0.1	0.0	37.5	0.3	0.1	1.474463973	55.3	0.4	0.1
51	Wholesale trade - nondurable goods	095	38.1	1.9	0.5	209.4	5.3	1.3	1.474463973	308.8	7.9	1.9
70	Hotels & other lodging places	095	0.6	12.8	3.4	6.9	154.4	41.2	1.242387333	8.5	191.9	51.2
72	Personal services	095	91.9	0.3	0.2	650.2	2.1	1.3	1.238509202	805.3	2.6	1.5
73	Business services	095	8.6	18.5	3.7	67.2	145.4	29.0	1.217944979	81.8	177.1	35.4
75	Automotive repair, services and parking	095	11.6	1.3	0.2	89.4	9.0	1.3	1.513755098	135.3	13.7	2.0
80	Health services	095	8.4	83.5	28.5	53.6	523.5	191.7	1.334045204	71.5	698.3	255.7
82	Educational services	095	0.3	12.7	3.1	1.4	55.1	13.3	1.277193635	1.8	70.4	17.0
84	Museums, art galleries, and botanical & zoological gardens	095	0.0	0.0	0.0	0.1	0.1	0.2	1.363636364	0.1	0.1	0.3
86	Membership organizations	095	1.3	0.4		8.1	2.4		1.266277585	10.2	3.1	
87	Engineering, accounting and other professional services	095	1.9	16.7	3.0	14.1	122.1	22.0	1.380471059	19.4	168.6	30.4
JACKSON COUNTY TOTALS			1,954.7	23,986.2	2,008.5	12,647.9	170,631.8	13,776.1	45.7	17,321.9	236,056.5	19,897.9
PLATTE COUNTY												
27	Printing & publishing	165	63.2	0.0	0.0	443.2	0.1	0.0	1.086895585	481.7	0.1	0.0
29	Petroleum refining	165	0.5	6.3	1.7	4.9	59.1	15.8	1	4.9	59.1	15.8
30	Rubber & plastic manufacturing	165	99.0	1.2	1.0	645.4	7.8	6.5	1.209286804	780.5	9.5	7.9

## 3.4.4

## APPENDIX D

On-road emissions and MOBILE6 parameters.

MOBILE6 inputs: default vehicle age distribution; 7.2 RVP gasoline in 1999; 7.0 RVP gasoline in 2012; refueling emissions not included (refueling emissions are included in area source inventory)

Year	1999	2012	2020
Non-local DVMT	37,575,888	47,925,799	53,653,284
Local DVMT	8,397,659	10,710,712	11,990,721
Total DVMT	45,973,547	58,636,511	65,644,005

VOC (tons/osd)	92.3	41.2	30.6
NOx (tons/osd)	152.9	67.2	36.5
CO (tons/osd)	1092.4	579.0	526.2

conversion factor:  $1.10 \times 10^{-6}$  tons/gram

32	Stone, clay, glass, and concrete products manufacturing	165	0.5	25.6	6.4	3.2	158.6	39.6	1.704112787	5.5	270.2	67.5
37	Transportation equipment manufacturing	165	32.2	5.3	3.8	175.4	28.7	20.8	1.832050134	321.3	52.5	38.2
45	Air transportation	165	29.1	57.5	24.0	156.1	308.4	131.0	1.463844001	228.6	451.5	191.7
49	Electric, gas, & sanitary services	165	81.4	6,440.7	681.3	482.9	38,512.4	4,128.3	1.367036767	660.2	52,647.9	5,643.6
51	Wholesale trade - nondurable goods	165	79.8	4.5	9.1	438.2	24.9	49.7	1.474463973	646.1	36.7	73.3
72	Personal services	165	4.6	0.0	0.0	29.6	0.1	0.1	1.238509202	36.6	0.2	0.1
73	Business services	165	0.1	3.4	0.8	0.5	14.4	3.5	1.217944979	0.6	17.5	4.3
75	Automotive repair, services and parking	165	16.5	1.2	1.0	120.4	8.7	7.5	1.513755098	182.3	13.2	11.3
PLATTE COUNTY TOTALS			407.0	6,545.7	729.2	2,499.9	39,123.3	4,402.9		3,348.2	53,558.5	6,053.7

TOTALS (LBS/OSD)		4,809.4	31,171.2	2,941.4	31,889.7	214,484.2	19,484.9		49,263.2	296,427.5	28,033.5
TOTALS (TONS/OSD)		2.4	15.6	1.5	15.9	107.2	9.7		24.6	148.2	14.0

1.5

**1999 Kansas City Regional Emissions Inventory: Nonroad Emissions**

<b>Railroad Equipment</b>						
Clay	0.0	0.0	20.0	20.0	40.0	44.0
Jackson	20.0	0.0	80.0	60.0	180.0	184.0
Platte	0.0	0.0	0.0	0.0	20.0	20.0
<b>Totals</b>	<b>20.0</b>	<b>0.0</b>	<b>100.0</b>	<b>80.0</b>	<b>240.0</b>	<b>248.0</b>
<b>Total Nonroad Emissions</b>						
<b>(lbs./OSD)</b>	<b>41,057.1</b>	<b>24,120.6</b>	<b>73,593.3</b>	<b>61,094.6</b>	<b>567,361.8</b>	<b>701,350.3</b>
<b>Total Nonroad Emissions</b>						
<b>(tons/OSD)</b>	<b>20.5</b>	<b>12.1</b>	<b>36.8</b>	<b>30.5</b>	<b>283.7</b>	<b>350.7</b>

1999 Kansas City Regional Emissions Inventory: Nonroad Emissions

Category/ County	1999 VOC lbs/day	2012 VOC lbs/day	1999 NOx lbs/day	2012 NOx lbs/day	1999 CO lbs/day	2012 CO lbs/day
<b>Agricultural Equipment</b>						
Clay	200.0	116.0	1,640.0	1,148.0	960.0	1,052.0
Jackson	240.0	136.0	2,040.0	1,416.0	1,200.0	1,300.0
Platte	340.0	192.0	2,900.0	2,008.0	1,700.0	1,852.0
<b>Totals</b>	<b>780.0</b>	<b>444.0</b>	<b>6,580.0</b>	<b>4,572.0</b>	<b>3,860.0</b>	<b>4,204.0</b>
<b>Aircraft</b>						
Clay	101.5	131.2	15.3	19.8	2,828.5	3,654.2
Jackson	106.7	138.1	16.1	20.8	2,971.4	3,846.6
Platte	1,454.6	1,933.0	4,023.3	5,347.4	8,282.8	11,002.4
<b>Totals</b>	<b>1,662.8</b>	<b>2,202.3</b>	<b>4,054.7</b>	<b>5,387.9</b>	<b>14,082.8</b>	<b>18,503.3</b>
<b>Airport Equipment</b>						
Clay	0.0	0.0	20.0	20.0	40.0	44.0
Jackson	0.0	0.0	20.0	20.0	40.0	40.0
Platte	100.0	40.0	480.0	392.0	820.0	984.0
<b>Totals</b>	<b>100.0</b>	<b>40.0</b>	<b>520.0</b>	<b>432.0</b>	<b>900.0</b>	
<b>Commercial Marine Vessels</b>						
Clay	6.7	6.7	176.6	176.6	19.5	19.5
Jackson	9.3	9.3	244.3	244.3	26.9	26.9
Platte	18.3	18.3	477.7	477.7	52.7	52.7
<b>Totals</b>	<b>34.3</b>	<b>34.3</b>	<b>898.6</b>	<b>898.6</b>	<b>99.0</b>	<b>99.0</b>
<b>Construction Equipment</b>						
Clay	1,280.0	548.0	6,820.0	4,664.0	8,280.0	7,520.0
Jackson	5,820.0	2,512.0	31,060.0	21,268.0	37,700.0	34,212.0
Platte	980.0	428.0	5,240.0	3,584.0	6,380.0	5,780.0
<b>Totals</b>	<b>8,080.0</b>	<b>3,488.0</b>	<b>43,120.0</b>	<b>29,516.0</b>	<b>52,360.0</b>	<b>47,512.0</b>
<b>Industrial Equipment</b>						
Clay	320.0	148.0	2,240.0	2,484.0	8,660.0	8,796.0
Jackson	1,020.0	484.0	7,020.0	7,784.0	26,460.0	26,988.0
Platte	60.0	36.0	420.0	448.0	1,360.0	1,420.0
<b>Totals</b>	<b>1,400.0</b>	<b>668.0</b>	<b>9,680.0</b>	<b>10,716.0</b>	<b>36,480.0</b>	<b>37,204.0</b>

1999 Kansas City Regional Emissions Inventory: Nonroad Emissions

<b>Commercial Lawn &amp; Garden Equipment</b>						
Clay	2,340.0	1,292.0	580.0	580.0	33,360.0	41,788.0
Jackson	13,580.0	7,496.0	3,320.0	3,400.0	193,820.0	242,728.0
Platte	800.0	432.0	200.0	200.0	11,320.0	14,192.0
<b>Totals</b>	<b>16,720.0</b>	<b>9,220.0</b>	<b>4,100.0</b>	<b>4,180.0</b>	<b>238,500.0</b>	<b>298,708.0</b>
<b>Residential Lawn &amp; Garden Equipment</b>						
Clay	1,060.0	596.0	60.0	80.0	15,980.0	19,548.0
Jackson	4,620.0	2,552.0	280.0	324.0	69,300.0	84,724.0
Platte	400.0	220.0	20.0	20.0	5,840.0	7,140.0
<b>Totals</b>	<b>6,080.0</b>	<b>3,368.0</b>	<b>360.0</b>	<b>424.0</b>	<b>91,120.0</b>	<b>111,412.0</b>
<b>Commercial Equipment</b>						
Clay	920.0	644.0	800.0	932.0	22,340.0	32,652.0
Jackson	3,420.0	2,440.0	2,980.0	3,512.0	84,040.0	122,748.0
Platte	280.0	188.0	240.0	284.0	6,720.0	9,828.0
<b>Totals</b>	<b>4,620.0</b>	<b>3,272.0</b>	<b>4,020.0</b>	<b>4,728.0</b>	<b>113,100.0</b>	<b>165,228.0</b>
<b>Pleasure Craft</b>						
Clay	240.0	176.0	20.0	20.0	520.0	524.0
Jackson	220.0	156.0	20.0	20.0	460.0	468.0
Platte	120.0	96.0	0.0	20.0	280.0	284.0
<b>Totals</b>	<b>580.0</b>	<b>428.0</b>	<b>40.0</b>	<b>60.0</b>	<b>1,260.0</b>	<b>1,276.0</b>
<b>Railroad Locomotives</b>						
Clay	0.0	0.0	0.0	0.0	0.0	0.0
Jackson	0.0	0.0	0.0	0.0	0.0	0.0
Platte	0.0	0.0	0.0	0.0	0.0	0.0
<b>Totals</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Recreational Equipment</b>						
Clay	140.0	124.0	20.0	20.0	3,140.0	3,512.0
Jackson	560.0	548.0	80.0	60.0	9,260.0	10,236.0
Platte	280.0	284.0	20.0	20.0	2,960.0	3,208.0
<b>Totals</b>	<b>980.0</b>	<b>956.0</b>	<b>120.0</b>	<b>100.0</b>	<b>15,360.0</b>	<b>16,956.0</b>



### **3.4.7**

### **APPENDIX G**

June 28, 2002 Public Hearing Comments and Responses.

**COMMENTS AND RESPONSES ON  
PROPOSED REVISIONS TO THE  
KANSAS CITY OZONE MAINTENANCE PLAN  
AND**

**RECOMMENDATION FOR ADOPTION**

On June 28, 2002, the Missouri Air Conservation Commission held a public hearing concerning the 2002 Kansas City Ozone Maintenance Plan. The following is a summary of comments received and the Missouri Department of Natural Resources' corresponding responses. Any changes to the proposed maintenance plan are identified in the responses to the comments.

The Missouri Department of Natural Resources' Air Pollution Control Program recommends that the commission adopt the plan action as amended. If the commission adopts this plan action, it will be the department's intention to submit this plan action to the U.S. Environmental Protection Agency (EPA) for inclusion in the Missouri State Implementation Plan.

**SUMMARY OF COMMENT:** The department's Air Pollution Control Program received comments from one source, the EPA.

**COMMENT:** The EPA commented that the plan should affirmatively state that since the emissions inventory will be maintained below the 1999 level, the National Ambient Air Quality Standards (NAAQS) for Ozone is maintained for another ten years through 2012.

**RESPONSE AND EXPLANATION OF CHANGE:** The department's Air Pollution Control Program changed the language in the Maintenance Plan because of this comment. The phrase --should be -- is replaced with -- will be -- in the Demonstration of Continued Attainment section.

**COMMENT:** The EPA asked if the ambient air quality would be monitored over the next ten-year period of the revised plan.

**RESPONSE AND EXPLANATION OF CHANGE:** The department's Air Pollution Control Program has changed the language in the Maintenance Plan because of this comment. An affirmative statement was added to clarify that the State will monitor the ambient air quality over the next ten years. The primary tracking plan for the Kansas City Metropolitan Area (KCMA) consists of continuous ozone monitoring. The ongoing regional transportation planning process carried out by the Mid America Regional Council (MARC), in coordination with the Kansas Department of Health and Environment (KDHE), the Missouri Department of Natural Resources and EPA, will serve as a secondary means of tracking mobile source Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) precursor emissions into the future. Since revisions to the region's transportation improvement programs are prepared every two years, and must go through a transportation conformity finding, this process will be used to periodically review progress toward meeting the vehicle miles traveled (VMT) and mobile source emissions projections in this maintenance plan.

**COMMENT:** The EPA commented that the plans should affirmatively state the motor vehicle emissions budgets. A proposed budget is not adequate.

**RESPONSE AND EXPLANATION OF CHANGE:** The department's Air Pollution Control Program has changed the language in the Maintenance Plan because of this comment. The

word -- proposed -- under the Emission Inventory and Motor Vehicle Budgets section, was removed.

COMMENT: In the section concerning contingency measures, Missouri commits to a 12-month deadline for implementing contingency measures after a violation of the standard occurs. After considering the past history and the lengthy time it took to implement control measures in response to violations of the standards in the 1990s, a process, a schedule and pertinent criteria that would be used to select and implement a contingency measure should be added to the maintenance plan. The commitment is to implement transportation control measures, yet the list contains other types of possible control measures. The EPA asked what contingency measure is the department's Air Pollution Control Program actually committing to and what contingency measures will actually be implemented to promptly correct violations of the ozone standard that may occur during the period of the maintenance plan. EPA also provided pertinent information being considered by Illinois, Indiana, and Wisconsin for the Chicago area maintenance plan for Missouri's consideration. The EPA noted that contingency measures with a two level response were included in those plans.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program has changed the language in the Maintenance Plan because of this comment. The Contingency Measures section was rewritten to include a two level response after implementation of the federal mobile source rule. From now until late 2004, existing control measures along with any necessary contingency measures will control the area's emissions. In 2005 to 2012, the mobile emission reductions from federal regulations are counted on for a substantive reduction in mobile emission levels. These projected reductions originate with the projected future federal rules. Upon implementation of these future rules, substantive reductions in the amount of contribution from Mobile sources to the total emissions of the area will occur. The process for identifying effective emission reduction strategies will require more specialized study and modeling to predict reductions and to recommend control strategies; if additional reductions are necessary.

The process after 2004 will be the use of a Level I response. This would occur in the event that the ozone NAAQS is exceeded, or if VOC or NO<sub>x</sub> emissions increase more than 5 percent above the levels contained in the attainment year (1999) emission inventory. To facilitate the emissions trends analysis, Missouri commits to compiling VOC and NO<sub>x</sub> emissions inventories every three years for the duration of the maintenance plan. The EPA does not require a state to implement contingency measures when occasional exceedances are recorded. Missouri will work cooperatively with KDHE and MARC to conduct a thorough analysis to determine if emission trends are likely to continue. If the trend is determined to continue, evaluation of what and where control measures are needed as well as the level of emission reduction needed, to avoid a violation of NAAQS. The study shall be completed within nine months. If deemed necessary, control measures will be adopted within 12 months of determination.

Level II response will be implemented or triggered when a violation of the one-hour ozone NAAQS is measured at a monitoring site for the maintenance area. Missouri will work cooperatively with KDHE and MARC to conduct a thorough analysis to determine appropriate measures to address the cause of the violation. The analysis shall be completed within six months. Selected measures shall be adopted within 12 months and implemented as expeditiously as practicable, taking into consideration the ease of implementation and the technical and economic feasibility of selected measures. No contingency measure will be implemented without providing for full public participation.

A process, a schedule, and pertinent criteria are outlined in the following Table.

Year	Contingency Measure Trigger	Action to be Taken	List of Contingency Measures
2003 - 2004	Violation occurs anywhere within the maintenance area.	Depending upon the degree and nature of the transgression, the department will begin implementation of transportation control measures sufficient to achieve at least a five-percent reduction in area wide emissions	Statewide NOx rule (MO) Federal Non-road Engine Standards One or more of the following will be considered for implementation: 1) industrial emission offsets of 1.15 to 1; 2) stationary source controls for NOx and VOC ; 3) Stage II Vapor Recovery program at gasoline refueling stations; 4) enhanced vehicle emission reductions programs; 5) alternate fuel programs for fleet vehicle operations; 6) vehicle anti-tampering programs; 7) other transportation control measures; 8) vehicle inspection and maintenance program; 9) VOC controls on minor sources, and; 10) the department will further review and evaluate the current VOC rules to see if they need to be tightened, changed or modified.
2005 - 2012	<b>Level I Trigger</b> <ul style="list-style-type: none"> <li>The KCMA NOx or VOC emissions inventories for 1999 increase more than 5% above the levels included in the 3-year emissions inventories updates.</li> </ul>	MO will work cooperatively with KS to evaluate the exceedances, or determine if adverse emissions trends are likely to continue. If so, the States will determine what and where controls may be required, as well as level of emissions reductions needed, to avoid a violation of the NAAQS. The study shall be completed within 9 months. If necessary, control measures shall be adopted within 18 months of determination.	<b>Point Source Measures</b> <ul style="list-style-type: none"> <li>NOx SIP Call Phase II (non-utility)</li> <li>Reinstate requirements for Offsets and/or LAER</li> <li>Apply RACT to smaller existing sources</li> <li>Tighten RACT for existing sources covered by EPA CTGs.</li> <li>Expanded geographic coverage of current point source measures</li> <li>MACT controls for industrial sources</li> <li>Other measures to be identified</li> </ul> <b>Mobile Source Measures</b> <ul style="list-style-type: none"> <li>Tier 2 Vehicle Standards and Low Sulfur Fuel</li> <li>Heavy Duty Diesel Standards and Low Sulfur Diesel Fuel</li> <li>TCMs, including, but not limited to, area-wide rideshare programs, telecommuting, transit improvements, and traffic flow improvements.</li> <li>High-enhanced I/M (OBDII)</li> <li>California Engine Standards</li> <li>Other measures to be identified</li> </ul>
	<b>Level II Trigger</b> <ul style="list-style-type: none"> <li>A violation of the Ozone NAAQS at any monitoring station in the KCMA.</li> </ul>	MO will work cooperatively with KS to conduct a thorough analysis to determine appropriate measures to address the cause of the violation. Analysis shall be completed within 6 months. Selected measures shall be adopted within 18 months and implemented as expeditiously as practicable, taking into consideration the ease of implementation and the technical and economic feasibility of selected measures.	<b>Area Source Measures</b> <ul style="list-style-type: none"> <li>California Architectural/Industrial Maintenance (AIM)</li> <li>California Commercial and Consumer Products</li> <li>Broader geographic applicability of existing measures</li> <li>California Off-road Engine Standards</li> <li>Other measures to be identified</li> </ul>

COMMENT: The EPA asked what emissions models were used to construct the 1999 on-road and off-road mobile source emissions inventory. If MOBILE5 was used, the EPA believes the State must commit to revising the motor vehicles emissions budgets within a short time period. In addition, the EPA asked, if the Bureau of Economic Analysis (BEA) growth factors were used to project emission in 2012.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program changed the Maintenance Plan language because of this comment. The EPA MOBILE6 model was used to develop the on-road emissions. The parameters of the MOBILE6 model were used in the development of mobile emissions added to the Mobile Source Emissions section. MOBILE5 was not used to calculate mobile emissions. In addition, a statement stating that MOBILE5 and MOBILE5B were not used was added to the section. The BEA growth factors were used because they are derived from EPA's Economic Growth Analysis System (EGAS) software. BEA growth factors are derived for each Source Classification Code (SCC) and County combination. The Point Sources Emissions section mentioning BEA growth factors was rewritten to affirmatively state the use of BEA growth factors.

COMMENT: The EPA commented that in addition to the maintenance plan that is required when an area requests re-designation, the Clean Air Act (CAA) also requires a revised maintenance plan for the second ten year period. The prior maintenance plan was approved in 1992, not 1991. This plan could be referred to as a 2003 Plan, not a 2002 Plan.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program changed the Maintenance Plan language because of this comment. An effort to correct the use of referencing the 1992 maintenance plan as the 1991 maintenance plan was made in the 1992 draft submitted to public review on June 28, 2002. Reluctance to correct direct quotes and outside department communications has allowed for some inconsistency when referring to the 1992 plan. The sections will be rewritten to correct or more clearly state the plan was a 1992 plan and not the 1991 plan. The department has historically identified plans by referring to the MACC adopted date and, therefore, will refer to this plan using that date.

COMMENT: The EPA commented that the affirmative statement in the Provision for the Continued Operation of the Air Monitoring Network section states that emission inventories will be updated every three years throughout the 10 year period of the revised maintenance plan and should be moved to the appropriate section.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program changed the Maintenance Plan language because of this comment. The commitment to renew the emission inventory would better serve the reader in the emission inventory update section. To aid the reader in finding such required information, numbered headings have been added to specific required sections.

COMMENT: The EPA commented that the revised maintenance plan relies on emission controls required by existing federal or state rules, those rules should be identified.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program changed the Maintenance Plan language because of this comment. Control measures that are required by existing federal or state rules have been identified. The existing federal and state rules that are enacted as control measures, or those rules the plan is relying on to show attainment, have been added to the Demonstration of Continued

Attainment section. The Maintenance Plan shows that, without adding any new control measures to the KC Maintenance Plan, ozone precursor emissions will be reduced between 2000 and 2012. These reductions will be realized through a combination of already adopted measures and programs affecting mobile sources, stationary sources, and transportation systems. The Kansas City Metropolitan Area will rely on the control programs listed to demonstrate maintenance of the one-hour ozone standard through 2012. A list of the existing federal and state control measure has been included in the actual plan.

COMMENT: The EPA believes some adjustments can be made that will help current and future readers understand this document.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program has changed the Maintenance Plan language because of this comment. To improve the readability of the document a numbered outline has been added to the table of contents and to each heading. The appendix, acronyms, and table lists were moved to the back of the document. The conformity and administrative requirement sections have been separated. The definition of some technical terms has been expanded to make them more understandable to a wider range of readers. In addition, the locations of critical items of the maintenance plan are identified in the Table of Contents section.

**3.4.8**

**APPENDIX H**

**MACC Adoption Certification**

Pursuant to 643.055 RSMo, the Missouri Air Conservation Commission has determined that this action is needed to have a U.S. Environmental Protection Agency approved State Implementation Plan.

Kansas City Ozone Maintenance Plan is hereby adopted by the Missouri Air Conservation Commission this 25th day of July, 2002.

Harriet A. Beard, Chairman

\_\_\_\_\_, Vice-Chairman

Frank Beller, Member

Michael L. Lamm, Member

Jeanne M. Collins, Member

Ermi Brown, Member

\_\_\_\_\_, Member



**3.4.9**

**APPENDIX I**

KS and MO Emissions from New Population and Employment Forecasts.

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**Kansas City Regional Emissions Inventory**  
**August 26, 2002**

*Note: Area and on-road mobile source estimates for 2012 are based on new draft population and employment forecasts approved by the MARC Technical Forecast Committee on July 11, 2002. Forecasts have not been adopted by the MARC Board.*

	VOC emissions						NOx emissions						CO emissions					
	1999			2012			1999			2012			1999			2012		
	KS	MO	REG	KS	MO	REG	KS	MO	REG	KS	MO	REG	KS	MO	REG	KS	MO	REG
Area	46.8	43.1	89.9	57.9	54.3	112.1	10.3	13.0	23.3	12.2	13.8	26.0	19.6	5.3	24.9	23.2	5.5	28.7
Point	12.3	15.9	28.3	14.8	24.6	39.4	31.9	107.2	139.1	39.0	148.2	187.2	4.6	9.7	14.3	5.3	14.0	19.3
On-road mobile	92.3		92.3	45.5		45.5	152.9		152.9	74.2		74.2	1092.4		1092.4	639.4		639.4
Off-road mobile	21.4	21.6	43.0	11.8	12.9	24.7	54.0	54.9	108.9	40.5	45.5	86.0	288.0	286.4	574.4	357.3	354.5	711.8
<b>TOTAL</b>	<b>253.6</b>			<b>221.7</b>			<b>424.2</b>			<b>373.5</b>			<b>1706.0</b>			<b>1399.3</b>		

# Kansas City Regional Emissions Inventory

## August 26, 2002

*Note: Area and on-road mobile source estimates for 2012 are based on new draft population and employment forecasts approved by the MARC Technical Forecast Committee on July 11, 2002. Forecasts have not been adopted by the MARC Board.*

TABLE I - VOC Emissions

	1999		2012		% change 1999-2012
	tons/OSD	% of total	tons/OSD	% of total	
Area	89.9	35.5%	112.1	50.6%	24.7%
Point	28.3	11.1%	39.4	17.8%	39.5%
On-road mobile	92.3	36.4%	45.5	20.5%	-50.8%
Off-road mobile	43.0	17.0%	24.7	11.1%	-42.7%
<b>TOTAL</b>	<b>253.6</b>		<b>221.7</b>		<b>-12.6%</b>

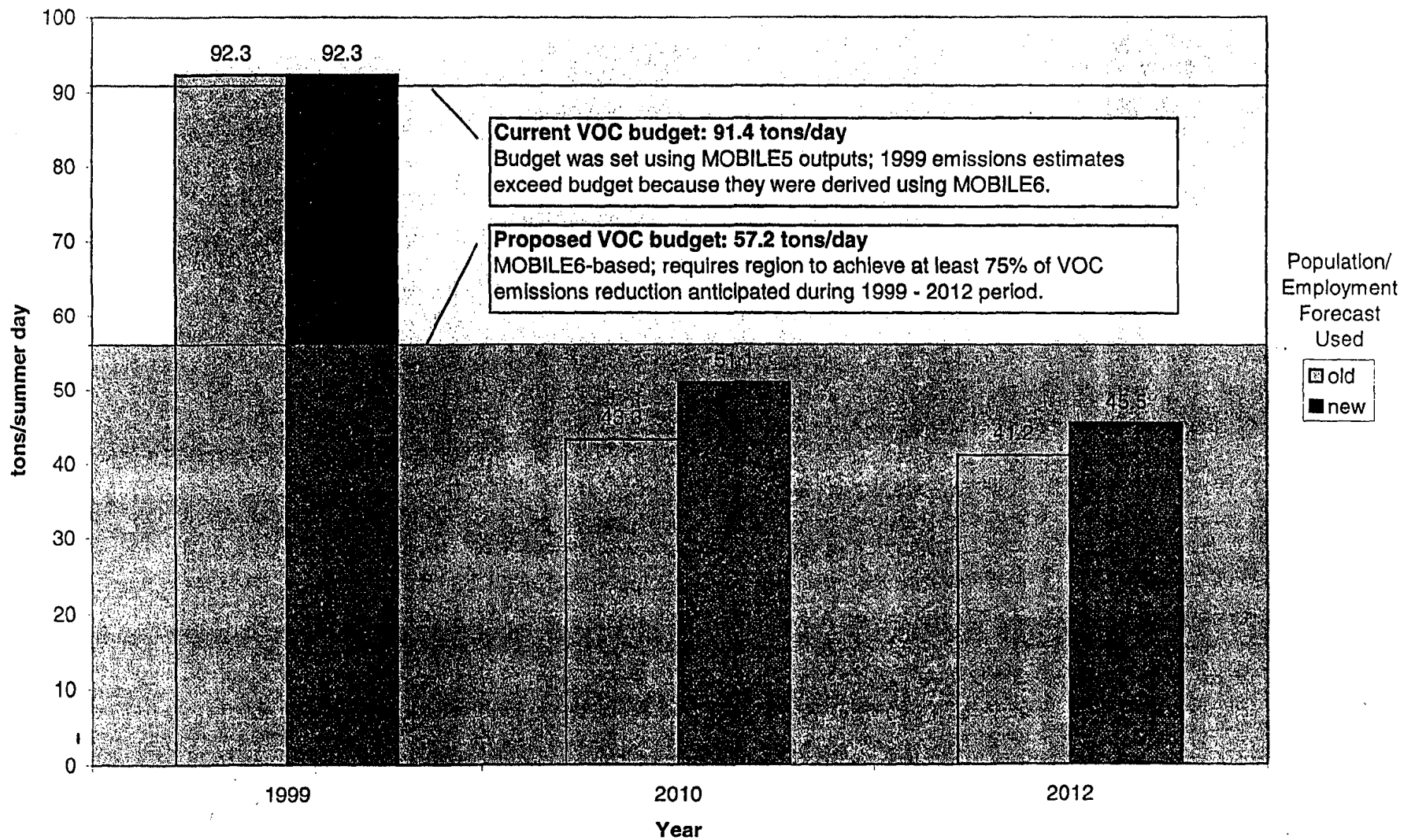
TABLE II - NOx Emissions

	1999		2012		% change 1999-2012
	tons/OSD	% of total	tons/OSD	% of total	
Area	23.3	5.5%	26.0	7.0%	11.7%
Point	139.1	32.8%	187.2	50.1%	34.5%
On-road mobile	152.9	36.0%	74.2	19.9%	-51.4%
Off-road mobile	108.9	25.7%	86.0	23.0%	-21.0%
<b>TOTAL</b>	<b>424.2</b>		<b>373.5</b>		<b>-12.0%</b>

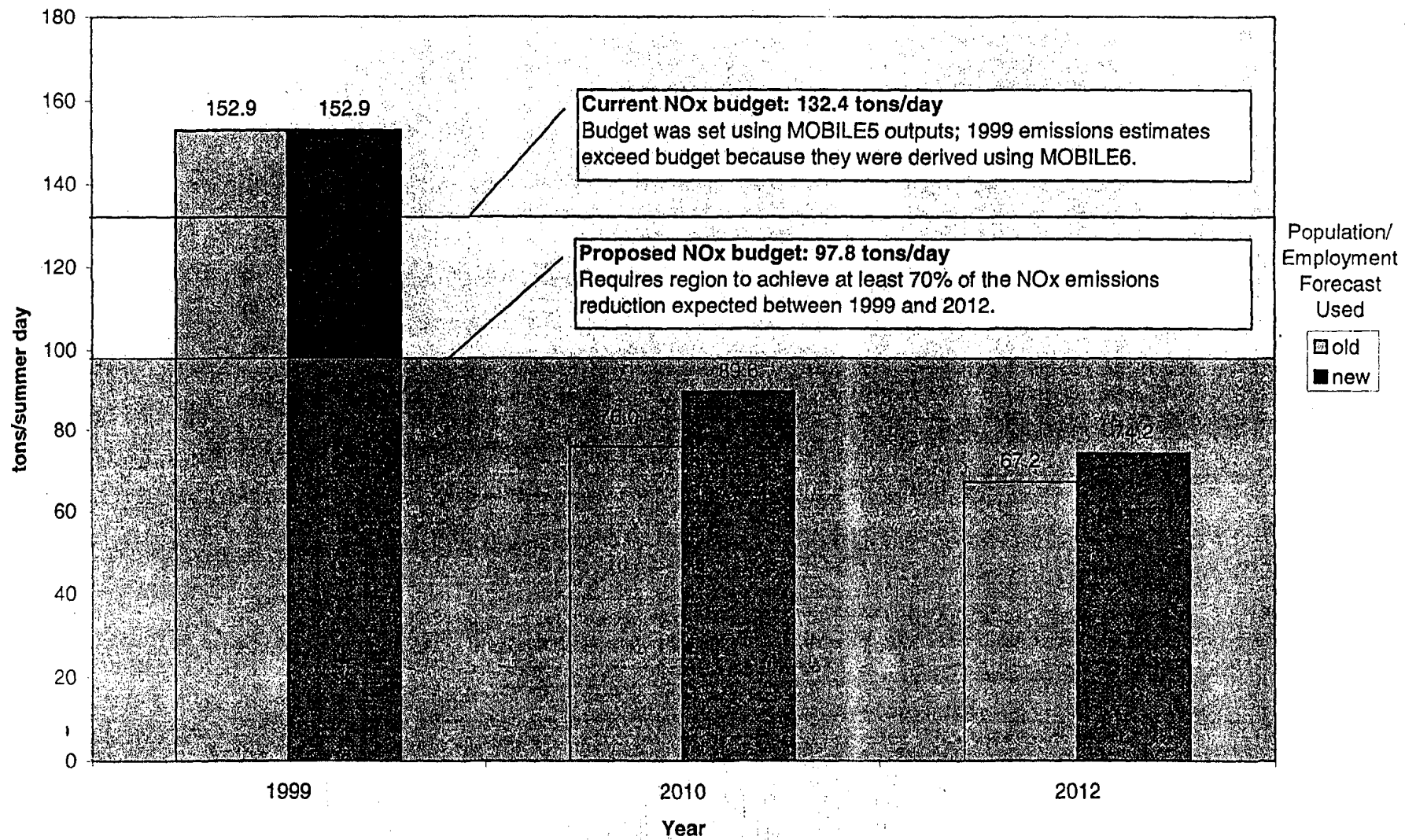
TABLE III - CO Emissions

	1999		2012		% change 1999-2012
	tons/OSD	% of total	tons/OSD	% of total	
Area	24.9	1.5%	28.7	2.1%	15.5%
Point	14.3	0.8%	19.3	1.4%	34.8%
On-road mobile	1092.4	64.0%	639.4	45.7%	-41.5%
Off-road mobile	574.4	33.7%	711.8	50.9%	23.9%
<b>TOTAL</b>	<b>1706.0</b>		<b>1399.3</b>		<b>-18.0%</b>

# Kansas City Regional Mobile Source VOC Emissions 1999-2012



# Kansas City Regional Mobile Source NOx Emissions 1999-2012



### **3.4.10**

### **APPENDIX J**

October 24, 2002 Public Hearing Notice  
and Certification of Publication of the Notice.

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AFFIDAVIT OF PUBLICATION

NEWS PRESS

MO. DEPT. NAT. RESOURCES  
PO BOX 176  
JEFFERSON CITY MO 65102

REFERENCE: 24019  
115446 EMISSIONS BANKING

County of Buchanan  
State of Missouri

I, LaVonda Burgess-Mayhew, being duly sworn according to law, state that I am the Classified Advertising Supervisor of the St. Joseph News-Press, a daily newspaper of general circulation in the county of Buchanan, where located; which has been admitted to the Post Office as second class matter in the city of St. Joseph, the city of publication; which newspaper has been published regularly and consecutively for a period of three years and has a list of bona fide subscribers voluntarily engaged as such who have stated price for a subscription for a definite period of time, and that such newspaper has complied with the provisions of Section 493.050 Revised Statutes of Missouri, 1949. The affixed notice appeared in said newspaper on the following date:

PUBLISHED ON: 09/21

ESTHER JONES  
Notary Public-Notary Seal  
STATE OF MISSOURI  
Buchanan County  
Commission Expires Jan 23, 2004

TOTAL COST: 931.00 AD SPACE: 532 LINE  
FILED ON: 09/24/02

(Signed)

Subscribed and sworn to before me this  
15th day of October 20 02

Esther Jones Notary Public

(Published in the St. Joseph News-Press Saturday, 09/21/02)

MISSOURI AIR CONSERVATION COMMISSION  
WILL HOLD PUBLIC HEARING

JEFFERSON CITY, MO—The Missouri Air Conservation Commission will hold a public hearing on Emissions Banking and Trading, Restriction of Emissions of Lead from Specific Lead Smelter-Refinery Installations, Operating Permit Program Deficiencies, Maintenance Plan for the St. Louis Ozone Nonattainment Area, St. Louis Mobile Source Emission Budget for the St. Louis Ozone Nonattainment Area, Kansas City Ozone Maintenance Plan, and other issues on Thursday, October 24, 2002. The Public Hearing will begin at 9 a.m. at the Traveler's Inn Christian Bed & Breakfast, Ballroom, 301 W. Washington, Kirksville, Missouri. The commission will hear testimony related to the following rule actions.

\* 10 CSR 10-6.060 (amendment) Construction Permits Required

This proposed amendment will remove the offset and banking provisions from this rule and add references to new rule, 10 CSR 10-6.410 Emissions Banking and Trading to avoid duplicative requirements.

\* 10 CSR 10-6.410 (new rule) Emissions Banking and Trading

This new rule was developed in accordance with 643.220 RSMo and outlines an emissions banking and trading program for criteria pollutants and their precursors. The goal of this program is to achieve and maintain the National Ambient Air Quality Standards in nonattainment and maintenance areas in the state of Missouri.

Banking and trading programs allow facilities to earn emissions reduction credits by emitting below the applicable standard. The emission reduction credits can be banked for later use or traded or sold to a different facility. An environmental contribution of 3% will be subtracted from the bank of credits each year. These programs are both environmentally and economically beneficial in nonattainment and maintenance areas.

\* 10 CSR 10-6.120 (amendment) Restriction of Emissions of Lead From Specific Lead Smelter-Refinery Installations.

This proposed amendment was requested by the Doe Run Company for the Resource Recycling facility. It will lower the total daily throughput limit for the blast furnace and raise the total daily throughput limit for the rotary melt and reverberatory furnaces. There will be no net lead emission increase as a result of this amendment.

\* 10 CSR 10-5.170 (amendment) Control of Odors From Processing of Animal Matter

This proposed amendment will correct an incorrect rule reference.

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This proposed amendment addresses deficiencies in Missouri's Title V program identified by the Sierra Club and the U.S. Environmental Protection Agency (EPA). Failure to adopt these amendments may cause the EPA to withdraw Missouri's Title V program.

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The Department of Natural Resources' Air Pollution Control Program has prepared a maintenance plan for the St. Louis area to proceed with a redesignation request. The St. Louis area is currently designated under the federal Clean Air Act as a moderate nonattainment area for ground level ozone. The area is expected to attain the one-hour ozone standard this year. The ozone season begins on April 1st and ends on October 31st of each year. The redesignation request is based on three years of no violations of the standard during the period 2000-2002.

A maintenance plan is required before an area can be redesignated to attainment status. The maintenance plan outlines how over the next ten years the area will maintain air quality that meets the national ambient air quality standard. When areas are redesignated from nonattainment to attainment, they are commonly referred to as "maintenance areas". Maintenance areas are considered to be attainment areas since the air quality meets the national ambient air quality standard. Once attainment is achieved, the area must continue to demonstrate, (maintain) attainment for at least 10 years after the U.S. Environmental Protection Agency officially approves the redesignation request. The maintenance plan includes an updated area emissions inventory, emissions growth projections, contingency measures, it identifies the control measures in place that will be relied on to maintain the air quality and it provides for continued operation of the monitoring network.

\* St. Louis Mobile Source Emission Budget for the St. Louis Ozone Nonattainment Area

The Missouri Department of Natural Resources is required to submit mobile source emission budgets for conformity purposes for the St. Louis ozone nonattainment area. This budget is a projected emissions inventory used to demonstrate reasonable further progress for a particular year specified in the State Implementation Plan. The mobile source emission budget establishes a cap on emissions that cannot be exceeded by projected highway and transit

# AFFIDAVIT OF PUBLICATION

STATE OF MISSOURI ) ss.  
County of Boone )

I, Ryan Parks, being duly sworn according to law, state that I am one of the publishers of the Columbia Daily Tribune, a daily newspaper of general circulation in the County of Boone, State of Missouri, where located; which newspaper been admitted to the Post Office as periodical class matter in the City of Columbia, Missouri, the city of publication; which newspaper has been published regularly and consecutively for a period of three years and has a list of bona fide subscribers voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time, and that such newspaper has complied with the provision of Section 493.050, Revised Statutes of Missouri, 2000, and Section 59.310, Revised Statutes of Missouri, 2000. The affixed notice appeared in said newspaper in the following consecutive issues:

1st Insertion,	September 20	2002
2nd Insertion,		2002
3rd Insertion,		2002
4th Insertion,		2002
5th Insertion,		2002
6th Insertion,		2002
7th Insertion,		2002
8th Insertion,		2002
9th Insertion,		2002
10th Insertion,		2002
11th Insertion,		2002
12th Insertion,		2002
13th Insertion,		2002
14th Insertion,		2002
15th Insertion,		2002
16th Insertion,		2002
17th Insertion,		2002
18th Insertion,		2002
19th Insertion,		2002
20th Insertion,		2002
21st Insertion,		2002
22nd Insertion,		2002

PRINTER'S FEE: \$244.00

By

Subscribed and sworn to before me this 23<sup>rd</sup> day of September, 2002

George Robinson  
Notary Public

My Commission Expires Jan 3, 2006

**GEORGE W. ROBINSON**  
Notary Public -- Notary Seal  
STATE OF MISSOURI  
Boone County  
My Commission Expires: Jan. 3, 2006

## MISSOURI AIR CONSERVATION COMMISSION WILL HOLD PUBLIC HEARING

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- 10 CSR 10-6.060 (amendment) Construction Permits Required  
This proposed amendment will remove the offset and banking provisions from this rule and add references to new rule, 10 CSR 10-6.410 Emissions Banking and Trading to avoid duplicative requirements.
- 10 CSR 10-6.410 (new rule) Emissions Banking and Trading  
This new rule was developed in accordance with 643.220 RSMo and outlines an emissions banking and trading program for criteria pollutants and their precursors. The goal of this program is to achieve and maintain the National Ambient Air Quality Standards in nonattainment and maintenance areas in the state of Missouri. Banking and trading programs allow facilities to earn emissions reduction credits by emitting below the applicable standard. The emissions reduction credits can be banked for later use or traded or sold to a different facility. An environmental contribution of 3% will be subtracted from the bank of credits each year. These programs are both environmentally and economically beneficial in nonattainment and maintenance areas.
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This proposed amendment was requested by the Doe Run Company for the Resource cycling facility. It will lower the total daily throughput limit for the blast furnace and raise the total daily throughput limit for the rotary melt and reverberatory furnaces. There will be no net lead emission increase as a result of this amendment.

• 10 CSR 10-5.170 (amendment) Control of Odors From Processing of Animal Matter  
This proposed amendment will correct an incorrect rule reference.

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This proposed amendment addresses deficiencies in Missouri's Title V program identified by the Sierra Club and the U.S. Environmental Protection Agency (EPA). Failure to adopt these amendments may cause the EPA to withdraw Missouri's Title V program. Maintenance Plan for the St. Louis Ozone Nonattainment Area

The Department of Natural Resources' Air Pollution Control Program has prepared a maintenance plan for the St. Louis area to proceed with a redesignation request. The St. Louis area is currently designated under the federal Clean Air Act as a moderate nonattainment for ground level ozone. The area is expected to attain the one-hour ozone standard this year. The ozone season begins on April 1st and ends on October 31st of each year. The redesignation request is based on three years of no violations of the standard during the period 2000-2002.

A maintenance plan is required before an area can be redesignated to attainment status. The maintenance plan outlines how over the next ten years the area will maintain air quality that meets the national ambient air quality standard. When areas are redesignated from nonattainment to attainment, they are commonly referred to as "maintenance areas". Maintenance areas are considered to be attainment areas since the air quality meets the national ambient air quality standard. Once attainment is achieved, the area must continue to demonstrate (maintain) attainment for at least 10 years after the U.S. Environmental Protection Agency officially approves the redesignation request. The maintenance plan includes an updated area emissions inventory, emissions growth projections, contingency measures, identifies the control measures in place that will be relied on to maintain the air quality and it provides for continued operation of the monitoring network. St. Louis Mobile Source Emissions

COMMISSION WILL  
HOLD A PUBLIC  
HEARING

JEFFERSON CITY, MO -

The Missouri Air Conservation Commission will hold a public hearing on Emissions Banking and Trading. Restriction of Emissions of Lead From Specific Lead Smelter-Refinery Installations, Operating Permit Program Deficiencies, Maintenance Plan for the St. Louis Ozone Nonattainment Area, St. Louis Mobile Source Emission Budget for the St. Louis Ozone Nonattainment Area, Kansas City Ozone Maintenance Plan, and other issues on Thursday, October 24, 2002. The Public Hearing will begin at 9 a.m. at the Traveler's Inn Christian Bed & Breakfast, Ballroom, 301 W. Washington, Kirksville, Missouri. The commission will hear testimony related to the following rule actions.

10 CSR 10-6.060  
(Amendment)  
Construction Permits  
Required

This proposed amendment will remove the emissions banking provisions from this rule and add references to new rule, 10 CSR 10-6.410 Emissions Banking and Trading to avoid duplicative requirements.

10 CSR 10-6.410 (new rule)  
Emissions Banking and Trading

This new rule was developed in accordance with 643.220 RSMo and outlines an emissions banking and trading program for criteria pollutants and their precursors. The goal of this program is to achieve and maintain the National Ambient Air Quality Standards in nonattainment and maintenance areas in the state of Missouri.

Emissions banking and trading programs allow facilities to earn emissions reduction credits by emitting below the applicable standard. Emissions reductions can be stored for later use or sold to a different facility. An environmental contribution of \$25 will be subtracted from the bank of credits each year. These programs are environmentally and economically ben-

on three years of no violations of the standard during the period 2000-2002.

A maintenance plan is required before an area can be redesignated to attainment status. The maintenance plan outlines how over the next ten years the area will maintain air quality that meets the national ambient air quality standard. When areas are redesignated from nonattainment to attainment, they are commonly referred to as "maintenance areas". Maintenance areas are considered to be attainment areas since the air quality meets the national ambient air quality standard. Once attainment is achieved, the area must continue to demonstrate (maintain) attainment for at least 10 years after the U.S. Environmental Protection Agency officially approves the redesignation request. The maintenance plan includes an updated area emissions inventory, emissions growth projections, contingency measures, it identifies the control measures in place that will be relied on to maintain the air quality and it provides for continued operation of the monitoring network.

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The Missouri Department of Natural Resources is required to submit mobile source emission budgets for conformity purposes for the St. Louis ozone nonattainment area. This budget is a projected emissions inventory used to demonstrate reasonable further progress for a particular year specified in the State Implementation Plan. The mobile source emission budget establishes a cap on emissions that cannot be exceeded by predicted highway and transit vehicle emissions. The department has worked with the East-West Gateway Coordinating Council and the assistance of a mobile source workgroup in calculating a year 2004 mobile source budget.

\* Missouri State Implementation Plan

developed new projections for on-road mobile emission inventories, area source emission inventories and a new mobile emissions budget.

The above documents will be available for review at the following locations: Missouri Department of Natural Resources, Air Pollution Control Program, 205 Jefferson St., Jefferson City, (573) 751-4817; Jefferson City Regional Office, 210 Hoover Road, Jefferson City, (573) 751-2729; Kansas City Regional Office, 500 NE Colbern Road, Lee's Summit, (816) 622-7000; Northeast Regional Office, 1709 Prospect Drive, Macon, (660) 385-2129; Southeast Regional Office, 948 Lester Street, Poplar Bluff, (573) 840-9750; St. Louis Regional Office, 9200 Watson Road, St. Louis, (314) 301-7600; Southwest Regional Office, 2040 W. Woodland, Springfield, (417) 891-4300.

Persons with disabilities requiring special services or accommodations to attend the meeting can make arrangements by calling the division directly at (573) 751-7840, the department's toll free number at (800) 334-6946, or by writing two weeks in advance of the meeting to: Missouri Department of Natural Resources, Air Conservation Commission Secretary, P.O. Box 176, Jefferson City, MO 65102. Hearing impaired persons may contact the program through Relay Missouri, (800) 735-2966.

The commission holds public hearings under the provisions of chapter 643, RSMo. Citizens wishing to speak at the public hearing should notify the secretary to the Missouri Air Conservation Commission, Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102-0176, or telephone (573) 751-7840. The department requests persons intending to give verbal presentations also provide a written copy of their testimony to the commission secretary at the time of the public hearing. The department also will accept written comments for the record until 5 p.m. on October 31, 2002; please send two copies of written comments to Chief, Planning Section, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176.

STATE OF MISSOURI  
COUNTY OF BUTLER) ss.

I, John Schrieber, being duly sworn according to law, state that I am PUBLISHER of DAILY AMERICAN REPUBLIC, a daily newspaper of general circulation in the counties of Butler, Ripley, Carter, Wayne, Stoddard, New Madrid and Scott; which newspaper has been admitted to the Post Office as second class matter in City of Poplar Bluff, Missouri, the city of publication; which newspaper has been published regularly and consecutively for a period of three years and has a bona fide subscribers voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time and that such newspaper has complied with the provisions of Section 493.050, Revised Statutes of Missouri 1969. The affixed notice appeared in said newspaper in the following consecutive issues:

Insertion	Vol. <u>134</u>	No. <u>214</u>	day of <u>20</u>	<u>Sept</u> 20 <u>02</u>
Insertion	Vol. ....	No. ....	day of ....	20 ....
Insertion	Vol. ....	No. ....	day of ....	20 ....
Insertion	Vol. ....	No. ....	day of ....	20 ....
Insertion	Vol. ....	No. ....	day of ....	20 ....
Insertion	Vol. ....	No. ....	day of ....	20 ....
Insertion	Vol. ....	No. ....	day of ....	20 ....
Insertion	Vol. ....	No. ....	day of ....	20 ....
Insertion	Vol. ....	No. ....	day of ....	20 ....

Subscribed and sworn to before me this 20 day of September

02

NOTARY PUBLIC  
My commission expires 3/26/04

Publication Fee \$ \_\_\_\_\_

2002 SEP 23 AM 10:49

AIR POLLUTION  
CONTROL PROGRAM

## AFFIDAVIT OF PUBLICATION

A01CNC3388592

CHERI BECHTEL A/P  
MDNR - AIR POLLUTION CONTROL  
P O BOX 176  
JEFFERSON CITY MO 65102

THE ATTACHED ADVERTISEMENT WAS PUBLISHED IN THE ST. LOUIS POST-DISPATCH IN CLASSIFICATION 9000, 01 TIME, STARTING ON SEPTEMBER 18, 2002 AND ENDING ON SEPTEMBER 18, 2002. THE ATTACHED ADVERTISEMENT RAN:

**MISSOURI AIR CONSERVATION COMMISSION  
WILL HOLD PUBLIC HEARING**

SEPT 18

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A maintenance plan is required before an area can be redesignated to attainment status. The maintenance plan outlines how over the next ten years the area will maintain air quality that meets the national ambient air quality standard. When areas are redesignated from nonattainment to attainment, they are commonly referred to as "maintenance areas". Maintenance areas are considered to be attainment areas since the air quality meets the national ambient air quality standard. Once attainment is achieved, the area must continue to demonstrate maintaining attainment for at least 10 years after the U.S. Environmental Protection Agency officially approves the redesignation request. The maintenance plan includes an updated area emissions inventory, emissions growth projections, contingency measures, it identifies the control measures in place that will be relied on to maintain the air quality and it provides for continued operation of the monitoring network.

**St. Louis Mobile Source Emission Budget for the St. Louis Ozone Nonattainment Area**

The Missouri Department of Natural Resources is required to submit mobile source emission budgets for conformity purposes for the St. Louis ozone nonattainment area. This budget is rejected emissions inventory used to demonstrate reasonable further progress for a particular year specified in the State Implementation Plan. The mobile source emission budget establishes a cap on emissions that cannot be exceeded by highway and transit vehicle emissions. The department has worked with the East-West Gateway Coordinating Council for the assistance of a mobile source workgroup in calculating a year 2004 mobile source budget.

**Missouri State Implementation Plan (SIP) Lead Plan for the Doe Run Resource Recycling Facility Near Bixby, MO.**

This revision of the Missouri SIP Lead Plan for the Doe Run Resource Recycling Facility includes production level changes in order to match proposed revisions to 10 CSR 10-6.120 that revise furnace throughput limits. These changes allow the facility greater operational flexibility without increasing net lead emissions. Additionally, it corrects grammatical errors and updates the quarterly monitor results. The area was redesignated as attainment of the National Ambient Air Quality Standard (NAAQS) for lead in December 2000, and there have not been any monitored exceedances since that designation was made. Therefore, it is not necessary to identify additional emissions reductions. The plan must only demonstrate that it will adequately protect the NAAQS from future exceedances.

**Kansas City Ozone Maintenance Plan**

The Missouri Department of Natural Resources' Air Pollution Control Program is required to submit mobile source emissions budgets for conformity purposes for the Kansas City Ozone maintenance area. The Missouri Air Conservation Commission adopted the current budget contained in the 2002 Kansas City Maintenance Plan on July 25, 2002. However, new economic, census indicators of population and employment recently became available. These economic indicators impacted inventory projections of mobile and area sources by increasing emissions. The department's Air Pollution Control Program through inter agency coordination group process and with the assistance from Mid America Regional Council (MARC) developed new projections for on-road mobile emission inventories, area source emission inventories and a new mobile emissions budget.

above documents will be available for review at the following locations: Missouri Department of Natural Resources, Air Pollution Control Program, 205 Jefferson St., Jefferson City, (573) 1-4817, Jefferson City Regional Office: 210 Hoover Road, Jefferson City, (573) 751-7729, Kansas City Regional Office: 500 NE Colburn Road, Lees Summit, (816) 627-7000, Northwest Regional Office: 1709 Prospect Drive, Muncie (660) 325-7129, Southeast Regional Office: 648 Linden Street, Poplar Bluff, (573) 840-9750, St. Louis Regional Office: 9200 Western Road, St. Louis, (314) 794-7000, Southwest Regional Office: 3500 W. Main Street, Springfield, (417) 801-1300.

*Shirley L. Hays*  
PUBLIC SERVICE MANAGER

TO AND SUBSCRIBED BEFORE ME,  
DAY OF SEPTEMBER, 2002.

*Patricia Carlisle*  
PUBLIC, CITY OF ST. LOUIS

VIT CHARGE \$5.00 EACH

PATRICIA CARLISLE  
Notary Public - State of Missouri  
St. Louis County  
Commission Expires June 21, 2005  
PHONE: 314-340-8000

RECEIVED

2002 SEP 23 AM 10: 53

## FIDAVIT OF PUBLICATION

AIR POLLUTION  
CONTROL PROGRAM

THE KANSAS CITY STAR COMPANY, publishers of  
THE KANSAS CITY STAR, a newspaper published in  
the City of Kansas City, County of Jackson, State of  
Missouri, confirms that the notice and/or advertisement of

MO DEPT OF NATURAL RESOURCES  
AIR POLLUTION CONTROL PROGRAM  
PO BOX 176  
JEFFERSON CITY MO 65102  
22428421

7518430

a true copy of which is hereto attached,  
was duly published in the above said newspaper

FOR THE PERIOD OF: 1 Day (s)

COMMENCING: September 20, 2002

ENDING: September 20, 2002

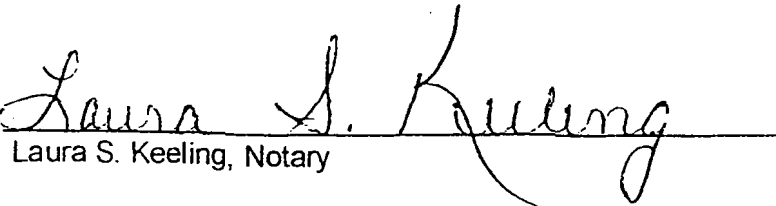
AR EDITION (S): 9/20/

STAR PAPER (S): 3

VOLUME: #123

Subscribed and sworn to before me,  
this Friday, 20 September, 2002 .

I certify that I was duly qualified  
as a Notary Public for the State of  
Missouri, commissioned in Jackson  
County, Missouri. My commission  
expires August 18, 2006.

  
Laura S. Keeling, Notary

### WILL HOLD PUBLIC HEARING

JEFFERSON CITY, MO - The Missouri Air Conservation Commission will hold a public hearing on Emissions Banking and Trading, Restriction of Emissions of Lead From Specific Lead Smelter-Refinery Installations, Operating Permit Program Deficiencies, Maintenance Plan for the St. Louis Ozone Nonattainment Area, St. Louis Mobile Source Emission Budget for the St. Louis Ozone Nonattainment Area, Kansas City Ozone Maintenance Plan, and other issues on Thursday, October 24, 2002. The Public Hearing will begin at 9 a.m. at the Traveler's Inn Christian Bed & Breakfast, Ballroom, 301 W. Washington, Kirksville, Missouri. The commission will hear testimony related to the following rule actions.

• 10 CSR 10-6.060 (amendment) Construction Permits Required

This proposed amendment will remove the offset and banking provisions from this rule and add references to new rule, 10 CSR 10-6.410 Emissions Banking and Trading to avoid duplicative requirements.

• 10 CSR 10-6.410 (new rule) Emissions Banking and Trading

This new rule was developed in accordance with 643.220 RSMo and outlines an emissions banking and trading program for criteria pollutants and their precursors. The goal of this program is to achieve and maintain the National Ambient Air Quality Standards in nonattainment and maintenance areas in the state of Missouri.

Banking and trading programs allow facilities to earn emissions reduction credits by emitting below the applicable standard. The emission reduction credits can be banked for later use or traded or sold to a different facility. An environmental contribution of 3 % will be subtracted from the bank of credits each year. These programs are both environmentally and economically beneficial in nonattainment and maintenance areas.

• 10 CSR 10-6.120 (amendment) Restriction of Emissions of Lead From Specific Lead Smelter-Refinery Installations

This proposed amendment was requested by the Doe Run Company for the Resource Recycling facility. It will lower the total daily throughput limit for the blast furnace and raise the total daily throughput limit for the rotary melt and reverberatory furnaces. There will be no net lead emission increase as a result of this amendment.

• 10 CSR 10-5.170 (amendment) Control of Odors From Processing of Animal Matter

This proposed amendment will correct an incorrect rule reference.

• 10 CSR 10-6.065 (amendment) Operating Permits

This proposed amendment addresses deficiencies in Missouri's Title V program identified by the Sierra Club and the U.S. Environmental Protection Agency (EPA). Failure to adopt these amendments may cause the EPA to withdraw Missouri's Title V program.

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The Department of Natural Resources' Air Pollution Control Program has prepared a maintenance plan for the St. Louis area to proceed with a redesignation request. The St. Louis area is currently designated under the federal Clean Air Act as a moderate nonattainment area for ground level ozone. The area is expected to attain the one-hour ozone standard this year. The ozone season begins on April 1st and ends on October 31st of each year. The redesignation request is based on three years of no violations of the standard during the period 2000-2002.

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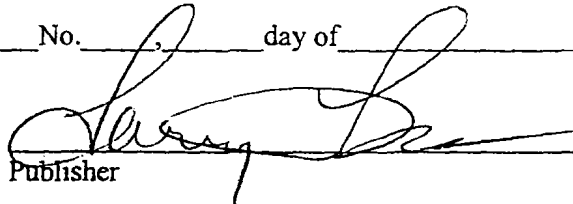
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AFFIDAVIT OF PUBLICATION  
STATE OF MISSOURI  
COUNTY OF ADAIR

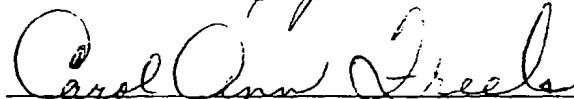
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2002 SEP 19 AM 10:29  
AIR POLLUTION  
CONTROL PERM

I, Larry W. Freels, being duly sworn, according to law, state that I am the Publisher of Kirksville Daily Express, a daily newspaper of general circulation in the County of Adair, State of Missouri, where located; which newspaper has been admitted to the Post Office as periodical class matter in the City of Kirksville, Missouri, the city of publication; which newspaper has been published regularly and consecutively for a period of three years and has a list of bona fide subscribers, voluntarily engaged as such who have paid or agreed to pay a stated price for a subscription for a definite period of time, and that such newspaper has complied with the provisions of Section 493.050, Revised Statutes of Missouri 2000, and Section 59.310, Revised Statutes of Missouri 2000. The affixed notice appeared in said newspaper in the following consecutive issues.

First Insertion Vol. 101 No. 219, 17th day of September, 2002  
Second Insertion Vol. \_\_\_\_\_ No. \_\_\_\_\_, \_\_\_\_\_ day of \_\_\_\_\_, 2002  
Third Insertion Vol. \_\_\_\_\_ No. \_\_\_\_\_, \_\_\_\_\_ day of \_\_\_\_\_, 2002  
Fourth Insertion Vol. \_\_\_\_\_ No. \_\_\_\_\_, \_\_\_\_\_ day of \_\_\_\_\_, 2002  
Fifth Insertion Vol. \_\_\_\_\_ No. \_\_\_\_\_, \_\_\_\_\_ day of \_\_\_\_\_, 2002  
Sixth Insertion Vol. \_\_\_\_\_ No. \_\_\_\_\_, \_\_\_\_\_ day of \_\_\_\_\_, 2002

  
Publisher

Subscribed and sworn to before me on this 17th day of September, 2002

  
Notary Public

My Commission Expires February 21, 2003.

Publication Fee \$ 451.50

Received payment \_\_\_\_\_

MISSOURI AIR CONSERVATION COMMISSION  
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St. Louis State Implementation Plan (SIP), Lead Plan for Doe Run Resource Recycling Facility Near Bixby, MO

As part of the Missouri SIP, Lead Plan for the Doe Run Resource Recycling Facility includes production limits in order to match proposed revisions to 10 CSR 10-6.120 that revise furnace throughput limits. These changes allow the facility greater operational flexibility without increasing net lead emissions. Additionally, it corrects grammatical errors and updates the quarterly monitoring results. The area was redesignated as attainment of the National Ambient Air Quality Standard (NAAQS) for lead in December 2000, and there have not been any monitored exceedances since that designation was made. Therefore, it is not necessary to identify additional emissions reductions. The plan must only demonstrate that

# SPRINGFIELD NEWS-LEADER

651 Boonville · MPO Box 798  
Springfield, Missouri 65801  
Telephone (417) 836-1100

September 23, 2002

## PROOF OF PUBLICATION

STATE OF MISSOURI  
County of Greene

I, Marsha Burnett of Springfield, Missouri, of lawful age, do upon my oath state that I am the Legal Clerk of the News-Leader, and that I am duly authorized to and do make this affidavit for and on behalf of the News-Leader, a newspaper published daily in the City of Springfield, Greene County, Missouri; that the public advertisement, notice or order of publication, a true copy of which is hereto attached, was published in said newspaper 1 time(s) upon the following dates:

First publication on Thursday, September 19, 2002

Second publication on

Third publication on

Fourth publication on

Last publication on

I do further state under oath that said newspaper has been admitted to the Post Office as second class matter; that it is a newspaper of general circulation in the City of Springfield, Missouri; that it has been published regularly and consecutively for a period of more than three years; that it has a list of bona fide subscribers voluntarily engaged as such; who have paid or agreed to pay a stated price for a subscription for a definite period of time, and that said newspaper has complied with the provisions of Section 14968 Revised Statutes of Missouri, 1939, relating to "Public Advertisements."

*Marsha Burnett*

before me this

23<sup>rd</sup>

Day of

September, 2002

*Denise Swaten*

Notary Public in and for  
Greene County, Missouri

 GANNETT

any  
wrong date. Let Doc  
10/14 instead of 10/24.  
They were notified  
of this mistake.

1 (Witness sworn.)

2 MR. HINES: Good morning, Madam Commissioner  
3 and Members of Commission.

4 CHAIRPERSON BEARD: Good morning.

5 COMMISSIONER COLLINS: Good morning.

6 MR. HINES: My name is Tim Hines. I'm an  
7 environmental engineer with the Department's Air  
8 Pollution Control Program. I work at 205 Jefferson  
9 Street in Jefferson City, Missouri. And I'm here to  
10 present testimony for the proposed new mobile budgets  
11 for the 2002 Kansas City maintenance plan.

12 The information on the emission budgets begins  
13 on page 95 of the briefing document. The last time I  
14 was here, I talked about the projected impact of new  
15 population and employment forecast, and that's really  
16 what I'm gonna follow up on.

17 The overview of today's presentation is I'm  
18 going to consider the issues surrounding the need to  
19 change the mobile emission budget, and we're going to  
20 review the new mobile emission budget inventory  
21 numbers.

22 One of the first issues we had is when do you  
23 change the mobile emission budget? We looked at  
24 several things: When you have untimely arrival of new  
25 regional forecasts, when you review those forecasts and

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Public Hearing Comments and Responses on Revised Budget

**COMMENTS AND RESPONSES ON  
PROPOSED REVISIONS TO THE  
KANSAS CITY OZONE MAINTENANCE PLAN  
AND  
RECOMMENDATION FOR ADOPTION**

On October 24, 2002, the Missouri Air Conservation Commission (MACC) held a public hearing concerning revised mobile source emissions budgets for the Kansas City Ozone Maintenance Plan. The following is a summary of comments received and the Department of Natural Resources' corresponding responses. Any changes to the proposed state implementation plan are identified in the responses to comments.

The Missouri Department of Natural Resources' Air Pollution Control Program recommends the commission adopt the plan action as proposed. If the commission adopts this plan action, it will be the department's intention to submit this plan action to the U.S. Environmental Protection Agency for inclusion in the Missouri State Implementation Plan.

**SUMMARY OF COMMENTS:** No written or verbal comments were received concerning this proposed revision.

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**3.4.12**

**APPENDIX L**

**MACC Adoption Certification for Revised Budgets and Inventory**

Pursuant to 643.055 RSMo, the Missouri Air Conservation Commission has determined that this action is needed to have a U.S. Environmental Protection Agency approved State Implementation Plan.

Kansas City Ozone Maintenance Plan is hereby adopted by the Missouri Air Conservation Commission this 5th day of December, 2002.

Herbert A. Beard, Chairman

Michael R. Fournier, Member

Jack C. Baker, Member

Ernest Brown, Member

Barry M. Hayes, Member

\_\_\_\_\_, Member

\_\_\_\_\_, Member

**3.4.13**

**APPENDIX M**

Final EPA Approval of 2002 Kansas City Maintenance Plan